



Thirty - Eighth Annual Catalogue

OF THE

North Georgia  
Agricultural College

(Department of the University of Georgia)

AT

DAHLONEGA, GEORGIA

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CHARTERED A. D. 1871

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The First Normal College Course Authorized  
by the State  
(Act of 1877)

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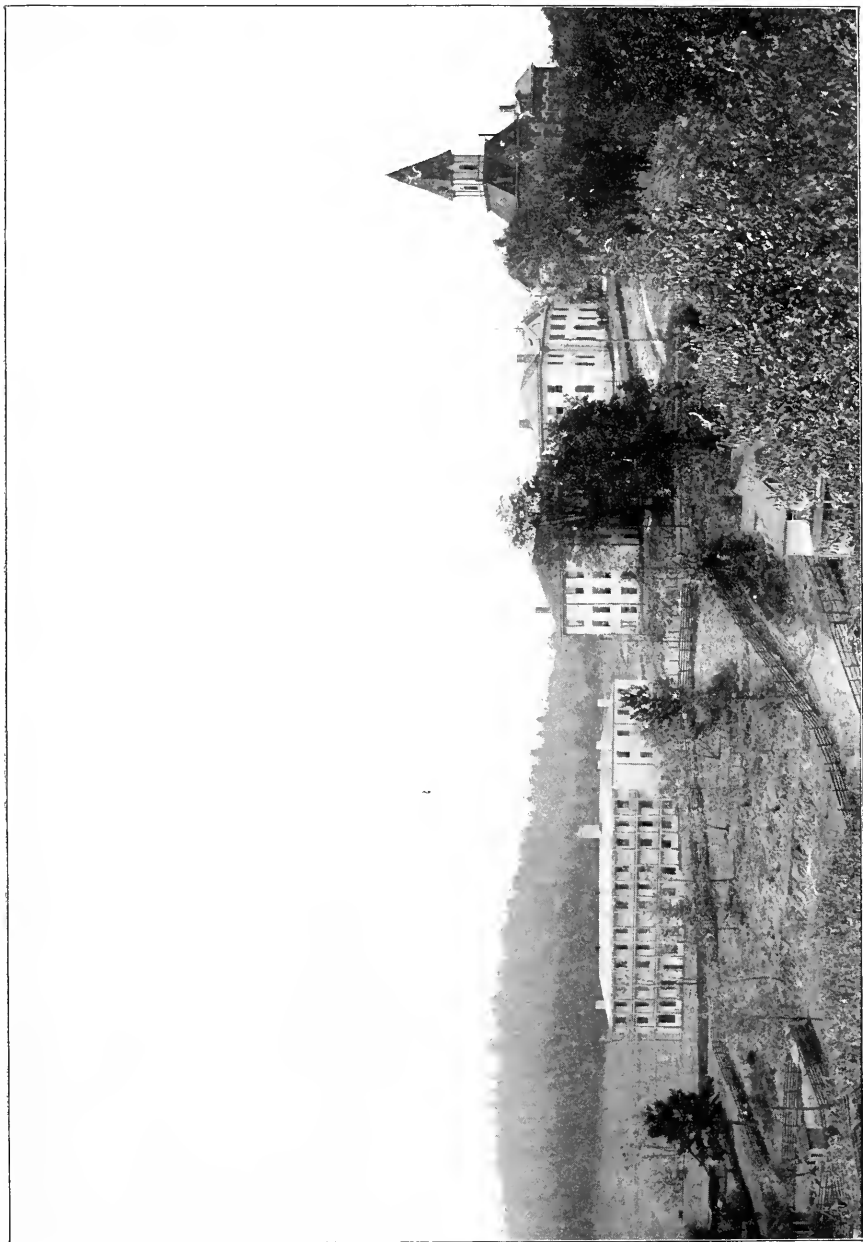
1909 - 1910

Announcements for

1910 - 1911

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GROUP OF COLLEGE BUILDINGS.

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# Schedule of Daily Lectures and Recitations 1910-1911

## Subjects and Professors.

	EDUCATION: GLENN	SCIENCE, GAILLARD	LATIN VICKERY	MATHEMATICS, BOYD	FRENCH, MISS MERRITT	HISTORY, BRADLEY	ENGLISH, CAMP
1-9 a. m.	Fresh. 2		Soph.	3d. Prep	Fresh	Jun. 2, Sen. 3	Jun. 3, Sen. 2
2-9:45		Jun.	Fresh	Sen.	Fresh-Drawing	Soph. 3	
3-10:30		Sen.	3d Prep	Jun.		Fresh	Soph.
4-11:15			Jun. 3, Sen. 2	Soph.		1st Prep. 3.	Fresh
5-12m.	Soph. 2	Fresh			Soph.	2nd Prep. 3.	3d Prep
6-12:45	Jun. 2, Sen. 3	Soph.		Fresh	Jun. 3, Sen. 2	3d Prep. 4.	2d Prep
7-2:30							
8-3:30		Lab					

	MINING, SNYDER	AGRICULTURE, NIVEN	ASST MATH. BYNUM	ASST ENG. CAVENDER	BUSINESS, SHULTZ.	GERMAN & BAND STEINER	DOMESTIC SCI. MISS MCGILL	COMMAND'T. SIGWORTH
1-9 am.	Fresh	Fresh	1st Prep. Math.	2d Prep. Sci.	Soph.	Fresh. Ger.		
2-9:45	Soph	Soph.	2d Prep. Math.	1st Prep. Sci.	3d Prep.			
3-10:30			2d Prep Bus.	2d Prep. Lat.				
4-11:15	Jun. {	3d Prep. {						
		Sci.						
5-12m.	Sen.	Sen.		1st Prep. Eng	Fresh			
6-12:45		Jun.		1st Prep. Lat.	Jun.		1st Prep. Bus.	
7-2:30						Band		Drill
8-3:30	Lab	Lab.			Lab.			Tactics

### CALENDAR, 1910-1911.

Fall Term Begins.....	September 7, 1910
Entrance Examinations .....	September 7-8
National Thanksgiving .....	November 25
Christmas Holidays.....	December 21 until January 4, 1911
Fall Term Ends .....	December 31
Spring Term Begins.....	January 1
Lee's Birthday .....	January 19
Field Day .....	April 1
Decoration Day .....	April 26
Annual Meeting of Board of Trustees.....	Friday, June 2
Commencement Sermon .....	Sunday, June 4
Commencement Day .....	Wednesday, June 7

### BOARD OF TRUSTEES.

H. H. PERRY, President .....	Gainesville
A. J. CAVENDER, Vice-President .....	Dahlonge
R. H. BAKER, Secretary.....	Dahlonge
H. D. GURLEY .....	Dahlonge
F. CARTER TATE.....	Jasper
JOHN P. CHENEY.....	Marietta
W. B. McCANTS.....	Winder



FACULTY.



## Faculty and Officers.

1909-1910

DAVID C. BARROW, C. & M. E.

*Chancellor of the University*

GUSTAVUS R. GLENN, A.M., L.L.D., President

*Professor of Philosophy*

BENJAMIN P. GAILLARD, A.M., Vice-President

*Professor of Chemistry, Physics, Geology*

E. B. VICKERY, A.M., Secretary

*Professor of Latin Language and Literature*

J. W. BOYD, A.M.

*Professor of Mathematics and Astronomy*

GEORGE W. CAMP, A.B.

*Professor of English Language and Literature*

G. N. BYNUM, A.B.

*Professor of Pure Mathematics*

W. J. BRADLEY, A.M.

*Professor of History*

C. F. NIVEN, B.Agr., M.S.

*Professor of Agriculture*

MISS MARY MERRITT, A.B.

*French and Drawing*

CARL SHULTZ, B.B.S.

*Professor of Business Science*

BYRON J. SNYDER, B. S. MET.

*Professor of Electrical and Mining Engineering*

MISS L. GLADYS MCGILL

*Domestic Science and Physical Culture*

PROF. EDWARD STEINER

*Musical Director*

JOHN M. SIGWORTH, Captain 23rd Infantry U. S. A.

*Commandant of Cadets*

MISS LEE ANNA WORLEY

*Librarian*

HOMER HEAD, M.D.

*College Surgeon*

## **FACULTY COMMITTEES**

### **Discipline**

GEORGE W. CAMP, Chairman

CAPT. JOHN M. SIGWORTH

J. W. BOYD

DR. G. R. GLENN

G. N. BYNUM

### **Course of Study**

E. B. VICKERY, Chairman

J. W. BOYD

GEORGE W. CAMP

### **Dormitory**

J. W. BOYD, Chairman

GEORGE W. CAMP

CARL SHULTZ

### **Library**

BENJAMIN P. GAILLARD, Chairman

GEORGE W. CAMP

W. J. BRADLEY

### **Athletics**

BYRON J. SNYDER, Chairman

W. J. BRADLEY

C. F. NIVEN

### **Brown Fund**

J. W. BOYD, Chairman

B. P. GAILLARD

E. B. VICKERY

### **Catalogue**

GEORGE W. CAMP, Chairman

DR. G. R. GLENN

B. P. GAILLARD

C. F. NIVEN

BYRON J. SNYDER

## GENERAL INFORMATION

### ORIGIN AND PURPOSE OF THE COLLEGE.

This College owes its origin to the Act of Congress of July 2, 1862, entitled "An Act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and mechanic arts." The Act contemplates the "endowment support and maintenance of at least one college, where the leading object will be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts in such manner as the legislature of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes."

The fund having been received by the State, the interest of it was placed under the control of the Trustees of the University by which the North Georgia Agricultural College became a department of the University, the title of the above property being conveyed to the Trustees of the University on the conditions specified in the donation, the Trustees of the University appointing the President of the College, making a certain allowance for its support, to wit: \$2,000 annually, and exercising over it a general supervision.

### LOCATION

Twenty-five miles north of Gainesville, nestled among the foot-hills of the Blue Ridge Mountains and surrounded by many of Nature's most pleasant charms is situated a college and gold mining town bearing the beautiful Indian name, Dahlonega. Here, sixteen hundred feet above sea level, with breezes fresh from neighboring mountains and water as pure and clear as the morning dew, is located the North Georgia Agricultural College. It may be truthfully said that the mountain air is a tonic and the sparkling water a panacea. The town being situated on a plateau almost surrounded by mountains, the winter climate is mild and reasonably dry; in spring, summer and autumn it is ideal. The town is unusually free from bad influences. Students who come here are comparatively free from the common vices of city life and are under the over-shadowing presence of the "everlasting hills," a silent, but not the less potential influence for good over the lives of young people that nobody has ever yet clearly explained.

## COLLEGE GROUNDS AND BUILDINGS

The College campus and farm consists of forty acres, beautifully located and well situated for college purposes. The main college building is located on a high knoll overlooking the town. In front is a pretty lawn gently sloping toward the center of town. In the rear are located the drill grounds, the athletic field, and the college farm, all conveniently situated, and afford ample space for the purposes for which they exist.

The main building which stands on the exact site of the old United States mint, contains twelve lecture rooms and offices, the college chapel, armory, and the two literary society halls. Each of these contains suitable furniture and apparatus. In the basement are located the Business Department, the office and orderly room of the Military Department. On the first floor are the Departments of English, History, Ancient Languages, Pure Mathematics, and French and Art.

To the right of the main building is located Bostwick Hall, the gift of Mr. J. H. Bostwick of New York. This building was completed in 1899. On the first floor are the President's office, the department of Applied Mathematics, and the Library. On the second floor are located the departments of Science and of Agriculture together with their laboratories.

Next beyond Bostwick Hall is situated what is known as "the Girl's Dormitory" which contains the office of the Superintendent of Barracks and comfortably furnished rooms for about fifty students.

To the rear of this is the new dormitory which was completed in 1907. This building is steam-heated and electric lighted, and contains well arranged and comfortably furnished rooms for about one hundred students.

The Mining Department occupies a temporary building across the drill field from the main building. In this building are the office, lecture room, drafting room, mining laboratory, assaying laboratory, and shop of this department. This building is not pretentious but on visiting this department one can not fail to be impressed with the great importance of the work done here.

## THE COLLEGE LIBRARY

The students have the use of a carefully selected library under the general supervision of a committee from the faculty, with a librarian





EASTWICK HALL.



regularly in charge. Nearly all the books have been chosen specially for the students, and new purchases are made twice a year from a fund appropriated for this purpose. A liberal selection of the best current literature, and the leading daily papers of the state are available to the students in the reading room. A complete card catalogue and an index to periodical literature enables students to use the books and bound volumes of magazines to the greatest advantage. The library is also a depository for the publications of the United States government. Specially chosen department libraries are being accumulated for the use of students in parallel reading and investigation.

### **ELECTION OF STUDIES.**

A. B., B. S., and B. Ph., students above Sophomore class will be allowed to select their studies, so far as the schedule of recitations will permit, after consultation with a special committee appointed from those members of the faculty with whom the work of these courses is done, the decision of that committee being subject to other regulations regarding irregular courses, number of studies, etc.

All students in the Prep classes will be required to take some regular course laid down in the catalogue. Students in the collegiate classes who wish to take irregular courses shall have at least five studies a day, two laboratory periods being counted as one study. Exceptions to this rule will be made only in case of students who file with the chairman of the committee on courses the college surgeon's certificate of physical inability.

### **THE DORMITORIES.**

The dormitories on the College grounds will accommodate 150 students. Each dormitory will be under the immediate supervision of a resident member of the faculty, thus securing personal attention to the needs of the students that can be brought about satisfactorily in no other manner.

The system of discipline employed in the dormitories will be, as it is throughout the College, military in its nature, but so arranged as to give to each student all the liberty warranted by continued good conduct and high class standing.

Only bona fide boarding students who are not able to make more economical arrangements elsewhere are required to live in the dormitories.

## ROOM FURNISHINGS

STUDENTS WILL FURNISH TOILET ARTICLES, BED-CLOTHING AND PILLOW. Board will be \$10.00 per month of four weeks payable in advance. This will include electric lights.

It is recommended, that cadets express or ship all articles needed in rooms, such as cover, pillow, etc., at least one week before they expect to arrive in Dahlonaga. These articles should be directed to the Superintendent of Barracks, Dahlonaga, Ga. (via Gainesville.)

When this course is followed out the cadet will find the articles placed in his room on his arrival, thus obviating the inconvenience due to delays occasioned by not receiving trunks promptly.

The general control of the dormitories is vested in the President and Faculty, who will make and enforce such rules as may appear necessary to secure the best results.

## EXPENSES.

Breakage Deposit .....	\$ 2.50
Incidental Fee (per year).....	10.00
Books and Stationery (per year).....	15.00
Washing, about (per year).....	10.00
Library Fee (per year).....	2.00
Dormitory Board, about (per year).....	100.00
Typewriting Fee (per year).....	6.00
Chemistry Fee (per year).....	4.00
Blue cap, blue blouse, grey trousers and black shoes.....	18.75
Two pairs white duck trousers.....	2.50
Service cap, blouse, trousers, and tan shoes.....	18.24
One pair leggings.....	.65
White belt, and half dozen pairs of white gloves.....	1.75
One-half dozen standing collars.....	.75
Biological Fee (per year).....	2.00
Quantitative Chemistry Fee (per year).....	6.00
Soil Physics Fee (per year).....	2.00

Students entering College January 4th, the beginning of the Spring Term, are required to pay only a proportional part of the above mentioned expenses.

When no damage to College property is charged against cadet, the breakage fees will be returned at the end of the school year.

Annual expenses are made as economical as possible, and will run from \$150.00 to \$175.00. When students bring their supplies from home, expenses can be reduced to an amount not exceeding \$80.00.

The expenses of the first month of the term include nearly all but the monthly board and washing, and amount to nearly \$60.00. In order that a student shall start promptly and efficiently in his class provision should be made for this.

A student bringing the appointment by his county school commissioner, representative, or senator, will be allowed a credit of \$2.50 on his incidental fee, for the term for which he is appointed, thus making matriculation fee \$2.50 per term. This certificate must be presented on entering college.

The estimate does not include traveling expenses to and from College. Stage fare from Gainesville to Dablonaga is \$1.50 for each person and 50 cents for each trunk. Pocket-money depends on individual wishes, but should be moderate.

The special fees are charged only those who take a particular subject and are intended to cover merely the cost of material.

Some expenses that can not be foreseen, will necessarily occur, but parents and students can feel assured that so far as the College is concerned, everything will be managed on the most economical basis.

### **THE CHARLES McDONALD BROWN FUND**

From the Charles McDonald Brown Scholarship Fund the institution gets \$1150.00 annually. This is to aid worthy young men who are unable to pay their way through college. The applicant must be at least eighteen years of age, in good health, and must reside in one of the following counties: Rabun, Habersham, Towns, Union, Fannin, Dawson, Murray, White, Lumpkin, Gilmer, Pickens, Cherokee and Forsyth in Georgia, and Oconee, Anderson, and Pickens, in South Carolina.

### **LITERARY SOCIETIES.**

There is no part of the college course more valuable than the training derived from taking an active part in a good literary society. It is here that one learns to think and speak while standing, and to grapple with his antagonist in a mental contest.

There are two well organized literary societies, the Decora Palaestra and the "Phi Mu." These societies furnish unexcelled opportunities

to students who wish to develop and improve themselves in Elocution, Composition and Debate. These societies meet each Monday for debate and for such other exercises as come in that line.

Joint debates between these societies are held at intervals during the term. The Champion Debate is held during Commencement week, and forms an important part of those exercises.

One or more intercollegiate debates will be arranged for during the year.

The drill in the use of Parliamentary Law is an important feature of society work, for nowhere can parliamentary usages be so well learned as in well regulated debate.

These societies are valuable auxiliaries to the Department of English and to the literary culture of each of their members, and are so recognized.

### MISCELLANEOUS

Students, on arriving, must immediately report at the dormitories and must at once consult the President about arrangements for board and for directions about registration.

The discipline of the College is under the immediate direction of the Commandant of Cadets. Serious offenses against good order are passed upon by the entire faculty.

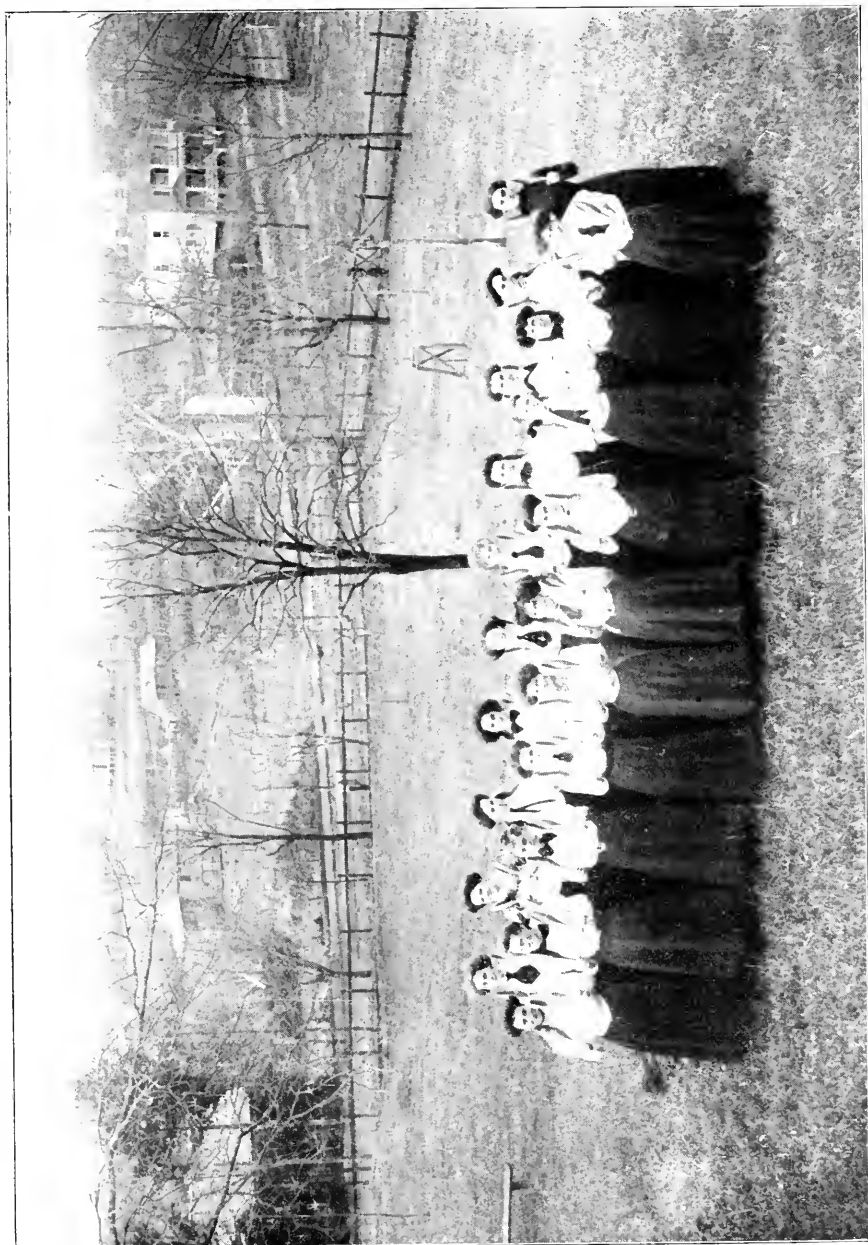
The Fall Term begins always on the first Wednesday in September, and the Spring Term ends the first Wednesday in June.

During the last session we had students from about seventy counties in Georgia. Almost without exception students who spend a year here are greatly improved in health. We have "plain living and high thinking" in the mountains. We encourage athletic sports, but do not allow them to conflict with the student's academic work. The average gain in weight for the past year is about 20 pounds.

The average age of a male student is over eighteen years, and a large majority are young men defraying their own expenses. This is not the school for idleness and frivolity, for fun and dissipation; but manly sports, innocent pleasures, regular physical training for all, hard study and excellence in character are the requisites for all who remain here.

### ADMISSION REQUIREMENTS

The fourteen unit standard has been adopted for entrance into the freshman class of the North Georgia Agricultural College to become



CLASS IN PHYSICAL CULTURE.





effective in September. This necessitated a raise of two units over the old curriculum. The reasons for this change are: First, the desire for a uniform entrance requirement with other high grade colleges; second, the purpose to meet the conditions of the Carnegie Foundation.

Below are outlined some of the details of the new requirements as they will go into affect at the opening of next term.

In view of the dormitory system of boarding and the military system of discipline prevailing in the college, no student under fifteen years of age will be permitted to enter college unless under the care of parents or relatives in the community.

Students are admitted to the Freshmen Class either on satisfactory examination in the required subjects, or on the certificate of the Principal of an "Accredited High School" as given by the University of Georgia.

All entrance examinations will be held during the two first days of the Fall Term.

### ENGLISH

READING AND PRACTICE—one and one-half units including study of Rhetoric.

Preparation for this part of the work should include the student's ability of writing two or three paragraphs on each of several topics to be selected from a considerable number set before him in examination. The treatment of these is designed to show the student's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. The power to write good English will always be regarded as of greater importance than the knowledge of the books. It is important that the student shall have a thorough knowledge of the fundamental principles of elementary rhetoric.

For Reading and Practice, 1910, 1911.

Group I (two to be selected).

Shakespeare's "As You Like It," "Henry V," "Julius Caesar," "The Merchant of Venice," "Twelfth Night."

Group II (one to be selected).

Bacon's Essays; Bunyan's "The Pilgrim's Progress," Part I; The Roger de Coverly Papers in the "Spectator;" Franklin's "Autobiography."

Group III (one to be selected).

Chaucer's "Prologue and Knight's Tale;" Spencer's "Faerie Queen" (selections); Pope's "The Rape of the Lock;" Goldsmith's "The De-

sented Village;" Palgrave's "The Golden Treasury" (first series), Books II and III with special reference to Dryden, Collins, Gray, Cowper, and Burns.

Group IV (two to be selected).

Goldsmith's "The Vicar of Wakefield," Scott's "Ivanhoe" and "Quentin Durward," Hawthorn's "The House of the Seven Gables," Thackeray's "Henry Esmond," Gaskell's "Cranford," Dickens' "A Tale of Two Cities," George Eliot's "Silas Marner," Blackmore's "Lorna Doone."

Group V (two to be selected).

Irving's "Sketch Book," Lamb's "Essays of Elia," DeQuincey's "Joan of Arc" and "The English Mail Coach," Emerson's "Essays" (selected); Ruskin's "Sesame and Lilies."

Group VI (two to be selected).

Colridge's "The Ancient Mariner," Scott's "The Lady of the Lake," Byron's "Mazeppa" and "The Prisoner of Chillon," Palgrave's "Golden Treasury" (first series) Book IV, with special attention to Wordsworth, Keats, Shelly; Macaulay's "Lays of Ancient Rome," Poe's Poems; Lowell's "The Vision of Sir Launfal," Arnold's "Sohrab and Rustum," Longfellow's "The Courtship of Miles Standish," Tennyson's "Gareth and Lynette," "Lancelot and Elaine," and "The Passing of Arthur," Brown-ing's "Cavalier Tunes," "The Lost Leaded," "How they Brought the Good News from Ghent to Aix," "Evelyn Hope," "Home Thoughts from Abroad," "Home Thoughts from the Sea," "Incident of the French Camp," "The Boy and the Angel," "One Word More," "Herve Riel," "Pheidippides," Southern Poets.

**b. STUDY AND PRACTICE**—One and one-half units, including study of Rhetoric.

Preparation for this part of the work includes the thorough study of each of the works named below: a knowledge of the subject-matter form and structure. In addition the applicant will be required to answer question involving the essentials of English grammar, and questions on the leading facts of English History in those periods to which the prescribed work belongs.

For careful study and practice, 1910, 1911.

Shakespeare's "Macbeth," Milton's "Lycidas," "Comus," "L'Allegro," and "Il Penseroso," Burk's "Speech on Conciliation with America" or Washington's "Farewell Address" and Webster's "First Bunker Hill Oration," Macaulay's "Life of Johnson" or Carlyle's "Essay on Burns."

## MATHEMATICS

### a. ALGEBRA

#### (1) To quadratics—one unit.

The four fundamental operations for rational algebraic expressions; factoring, determination of highest common factor and lowest common multiple by factoring; fractions, including complex fractions ratio and proportion; linear equations, both numerical and literal, containing one or more unknown quantities; problems depending on lineal equations; radicals, including the extraction of the square root of polynomials and of numbers; exponents, including fractional and negative powers.

#### (2) Quadratic equations, binomial theorem, and progressions. One half unit.

Simple cases of equations with one or more unknown quantities that can be solved by the method of linear or quadratic equations.

Problems depending upon quadratic equations.

The binomial theorem for positive integral exponents.

The formulas for the 4th. term and the sum of the terms for the arithmetic and geometric progressions, with applications.

### b. PLANE GEOMETRY.—One unit.

The usual theorems and constructions of good text-books, including general properties of plane rectilinear figures; the circle and the measurement of angles; similar polygons; areas; regular polygons and the measurement of the circle.

The solution of numerous original exercises, including loci problems.

Application to the mensuration of the line and plane surfaces.

### c. SOLID GEOMETRY.—One half unit.

The usual theorems and constructions of good text-books, including the relations of planes and lines in space; the properties and measurement of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle.

The solution of numerous original exercises, including loci problems.

Application to the mensuration of surface and solids.

### d. TRIGONOMETRY.—One half unit.

Definitions and relations of the six trigonometric functions as ratios; circular measurement of angles.

Proofs of principle formulas, in particular for the sine, cosine, and tangent of the sum and difference of two angles, of the double angle and the half angle, the product expressions for the sum or the difference

of two sines, or of two cosines, of two tangents or of two cotangents, etc.; the transformation of trigonometric expressions by means of these formulas.

Solution of trigonometric equations of a simple character.

Theory and use of logarithms (without the introduction of work involving infinite series).

The solution of right and oblique triangles, and practical applications, including the solution of right spherical triangles.

## LATIN

GRAMMAR AND COMPOSITION—One unit.

(1) The inflections; the simple rules for composition and derivation of words; syntax of cases and verbs; structure of sentences in general with particular regard to relative and conditional sentences, indirect discourse, and the subjunctive. Translation into easy Latin of detached sentences and very easy continuous prose based upon Caesar and Cicero.

(2) CAESAR—One unit.

Any four books of the Gallic war.

(3) CICERO—One unit.

Any six orations from the following list of equivalents: the four orations against Catiline, Archias, the Manilian Law, Marcellus, Roscius, Milo, Sestius, Ligarius, the fourteenth Philippic.

(4) VIRGIL—One unit.

The first six books of the Aeneid, and so much prosody as relates to accent, versification in general and the dactylic hexameter.

Equivalents in Sallust, Ovid, and other Latin Authors may be offered.

In connection with all of the reading there should be constant practice in sight translation and in prose composition.

## HISTORY

Preparation in history will be given credit upon the basis of time devoted to the study of each branch, rather than on the amount of ground covered. The training in history should require comparison and the use of judgment on the pupil's part, rather than the use of memory. The use of good text-books, collateral reading, practice in writing, ac-

curate geographical knowledge are essential. The accepted groups are ancient history up to 800 A. D., medieval and modern English, American and civics.

Each may attain the credit on one unit.

## SCIENCE

### a. PHYSIOGRAPHY—One unit.

The preparation in physiography should include the study of at least one of the modern text-books, together with an approved laboratory and field course of at least forty exercises actually performed by the student.

### b. PHYSICS—One unit.

The preparation in physics should include individual laboratory work, comprising of at least forty exercises selected from a list of sixty or more; instruction, class-room demonstrations and lectures, to be used mainly as a basis for questioning upon the general principles involved in the pupil's laboratory investigations; the study of at least one standard text-book, to the end that the pupil may gain a comprehensive and connected view of the most important facts and laws of elementary physics.

### c. BIOLOGY—One unit.

This course includes the following: Animal Biology, Human Biology, and Plant Biology.

The preparation for Animal Biology will include a short course in general natural history; general classification of animals and their chief characteristics; a comparison of general life-processes in animals and plants.

The preparation for Human Biology should include the nature of foods and their history in the body; the essential facts in digestion, absorption, circulation, secretion, excretion and respiration; the nervous system; the structure of the various organs and their operation; a note-book in which are kept carefully outlined drawings of the chief structures studied anatomically together with the explanations of the drawings are essential.

The preparation in Plant Biology should include preliminary experiments; seed germination; forms, functions, and structures of leaves, flowers, their parts and forms, fertilization and pollination; fruits and

seeds. Practical experiments and illustrations should be given in the laboratory and in the field results tabulated in note-book with sketches when practicable.

The following subjects will also be credited when properly taught with laboratory and field practice when practicable: -

- d. BOTANY—One unit.
- e. CHEMISTRY—One unit.
- f. ZOOLOGY—One unit.
- g. PHYSIOLOGY—One unit.

### DRAWING

One unit. A full year's work in drawing should include simple geometrical plane and solid figures, the simple pieces of machinery, with a fair knowledge of the rules of perspective and light and shade as applied in freehand sketching. The student should complete at least twenty drawings which display proficiency in the following points:

a.—Ability to sketch freehand from dictation with reasonable accuracy and with fairly correct steady and clean lines any simple geometrical figure or combination of figures, straight lines, squares and circles, polygons, spirals, and the like.

b.—Ability to sketch from objects with reasonable correctness and proportion, structure and form, geometrical models, simple vases, simple details of machinery or common objects such as ordinary household furniture and utensils.

c.—Ability to sketch from copy, enlarging or reducing its dimensions any simple object such as a globe valve, top, or any ordinary historical ornament as an acanthus leaf, iron scroll work, etc.

## COLLEGIATE COURSES

### Department of Philosophy and Education.

By the President.

1. **PSYCHOLOGY FOR TEACHERS.**—The elementary principles of mental operations, observations, and development will be stressed.

TEXT.—Gordy's "New Psychology."

FRESHMAN CLASS.—Fall term. Two hours.

2. **CLASS MANAGEMENT.**—This course will attempt to give an idea of the principles and technique of class-room management.

TEXT.—Bagley's "Classroom Management."

FRESHMAN CLASS.—Spring term. Two hours.

3. **HISTORY OF EDUCATION.**—This course is intended to give: First an historical survey of the development of education; Second, a discussion of educational tendencies rather than of men; Third, a portrayal of the connection between education as a theory and actual work; Fourth, a suggestion of the relations with present educational work.

TEXT.—Monroe's "A Brief Course in the History of Education."

SOPHOMORE CLASS.—Fall term. Two hours.

4. **PHILOSOPHY OF EDUCATION.**—Education from a biological, a sociological, a physiological and a psychological standpoint.

TEXT.—Horn's "The Philosophy of Education."

SOPHOMORE CLASS.—Spring term. Two hours.

5. **PSYCHOLOGY.**—This course is intended to give the student a general knowledge of the essential facts and the fundamental laws of the mind.

TEXT.—James's "A Briefer Course in Psychology."

JUNIOR CLASS.—Fall term. Two hours.

6. **PHILOSOPHY.**—This course will give a brief view of philosophic thought from its earliest existence to the present. Special attention will be given to the period of Greek philosophy. Lectures, discussions, and then work.

TEXTS.—Rogers' "A Student's History of Philosophy;" Bakewell's "Source book in Ancient Philosophy."

JUNIOR CLASS.—Spring term. Two hours.

7. ETHICS.—This course is intended to present both historically and critically the principal types of ethical theory; lectures, parallel readings, and individual investigations.

TEXT.—Thilly's "Introduction to Ethics."

SENIOR CLASS.—Entire year. Two hours.

## Department of Physics, Chemistry and Geology

B. P. GAILLARD, Professor.

The course pursued in these branches is designed to give the student such knowledge of scientific principles and such training in scientific methods as will be of most advantage to him.

1. General Inorganic Chemistry is taken up and completed through non-metals in the fall term. The work is continued in the spring term and completed by commencement.

Freshman Class. Five hours recitation, and five hours laboratory.

2. (a) QUALITATIVE ANALYSIS.—This course has its foundation in the previous course and aims to make the work a practical study, full of interest and utility.

Sophomore Class, fall term. Nine hours laboratory, and one hour recitation.

(b) ORGANIC CHEMISTRY.—This study is taken up with special reference to such subjects as bear on Agriculture.

Sophomore Class, spring term. Three hours recitation, two hours laboratory.

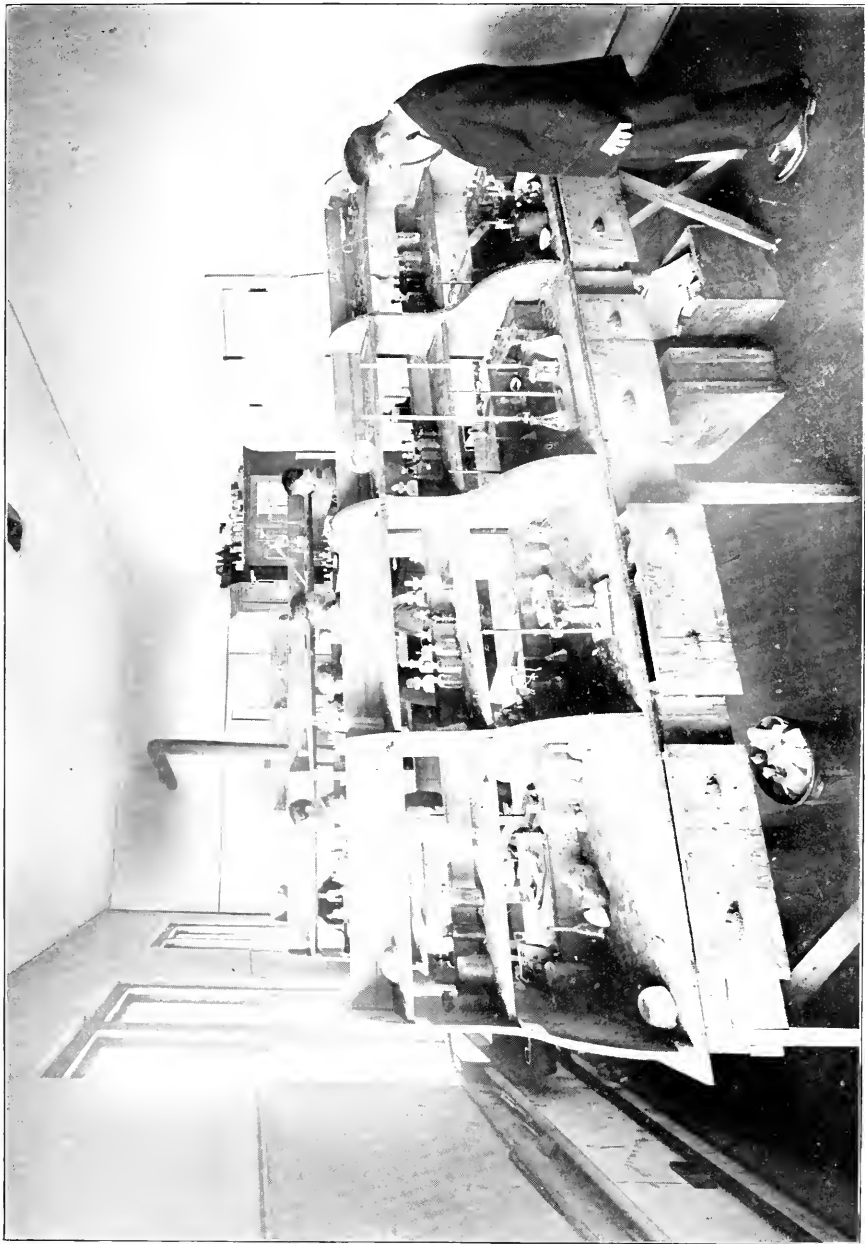
3. PHYSICS.—Matter and Properties, Dynamics of Liquids and Gases and Heat are completed in the fall term. Sound, Light, and Electricity in the spring term.

Junior Class. Three hours recitation, and two laboratory. Pre-requisite, a pass in Sophomore mathematics.

4. QUANTITATIVE ANALYSIS.—Gravimetric Analysis, fall term, Volumetric Analysis and miscellaneous work, spring term.

Junior Class. One hour recitation and nine hours laboratory.





CHEMICAL LABORATORY.



5. **GEOLOGY.**—This includes class room work with practical study of the geology of the vicinity.

Senior Class, fall term. Five hours.

Students doing laboratory work are required to pay \$2.00 a term to cover cost of material used in their work.

## Department of Mathematics and Astronomy

JOSEPH W. BOYD. Professor of Pure Mathematics and Astronomy.

G. N. BYNUM, Professor of Applied Mathematics.

1. **HIGHER ALGEBRA.**—Quadratic Equations, Simultaneous Quadratics, Radical Equations, Surds, and Imaginaries; Ratio and Proportion; Arithmetical and Geometrical Progressions; Binomial Theorem, Logarithms; Interest and Annuities; Choice and Chance; Continued fractions, Variables and Limits, Series, Interpolation, Determinants; General Properties of Equations.

TEXT: Wentworth's "Higher Algebra."

Freshman Class, fall term. Five hours.

2(a) **SPHERICAL TRIGONOMETRY.**—The Right Triangle, the Oblique Triangle; Applications to Astronomy.

(b) **SURVEYING.**—Instruments and their uses; Land Surveying, Rectangular Surveying, Plotting, Plane Table Surveying, Triangulation.

(c) **LEVELLING.**—Levelling for Section; Topographical Levelling; Railroad Surveying.

TEXT:Wentworth's "New Plane and Spherical Trigonometry, Surveying and Levelling."

Freshman Class, spring term. Five hours.

3. **ANALYTIC GEOMETRY.**—Loci and their equations. Rectilinear system of co-ordinates, polar co-ordinates; the parabola, the ellipse, the hyperbola; Loci of the second order, Higher Plane Curves. Solid Geometry.

TEXT: Wentworth's.

Sophomore Class, fall term. Five hours.

4. (a) Analytic Geometry, completed.

(b) Algebra.

(c) Calculus: Differentiation integration.

Sophomore Class, spring term. Five hours.

5. **ADVANCED CALCULUS.**—Quantities, Functions, Fundamental Principles, Differentiations, Limits, Analytic and Geometric Applications; Successive Differentiations.

Junior Class, fall term. Five hours.

6. **ADVANCED CALCULUS.**—Integral Calculus Type Forms, Rational and irrational Fractions, Trigonometric Integrals; Geometric and Mechanical Applications.

Junior Class, spring term. Five hours.

7. **ASTRONOMY.**—Text, Young's "Manual of Astronomy."

Senior Class, fall term. Five hours.

8. **MECHANICS.**—Composition and Resolution of Forces; Center of Gravity and Stability; Elementary Machines, Kinetics, Centrifugal Force, Work and Energy; Mechanics of Gases and Vapors; Hydraulic and Pneumatic Mechanics.

Senior Class, spring term. Five hours.

## **Department of English Language and Literature**

GEORGE W. CAMP, Professor.

F. C. CAVENDER, Assistant Professor.

1. **RHETORIC.**—Exposition, argumentation, narration, description, prosody; study of model literature, illustrating each topic; frequent short themes; longer themes at regular intervals; class debates; oral exercises in story telling, describing, and explaining; readings, orations; study of prescribed literature; reviews. The principles of logic will be taught in connection with argumentation.

TEXTS: Baldwin's "A College Manual of Rhetoric"; Creighton's "Introductory Logic."

Freshman Class, entire year. Five hours.

2. **LITERARY CRITICISM.**—Art Form and Art Content in literature; personality in literary art; a detailed study of the letter, the essay, biography, history, and the oration, together with the study of representative authors under each topic; occasional themes required; specially prepared theme required at the end of the term. Students are required to keep notes on readings.

Sophomore Class, fall term. Five hours.



DECORA LITERARY SOCIETY HALL.



3 LITERARY CRITICISM (Continued).—Fiction: the romance and the novel; Poetry: the epic, the drama, the lyric; study of illustrative literature; Theme work: specially prepared theme at close of term on some question of criticism. Students are required to keep notes on readings.

TEXT: Sheran's "A Handbook of Literary Criticism" (used both fall and spring terms.)

Sophomore Class, spring term. Five hours.

4 OLD ENGLISH AND MIDDLE ENGLISH.—Study of Old English grammar; reading of Anglo-Saxon; lectures on the historical development of the English language; study of Chaucer's "Prologue and Knight's Tale"; Spencer's *Faerie Queene*.

TEXT: Bright's "Anglo-Saxon Reader." "Chaucer's Prologue and Knight's Tale" (MacMillan Pocket Classics.)

Junior Class, fall term. Three hours.

5 ENGLISH LITERATURE.—Historical survey of the English language as a whole; detailed study of special periods; study of literature rather than about literature; theme work.

TEXT: Pancoast's "Introduction to English Literature" (Revised.)

Junior Class, spring term. Three hours.

6 EPIC POETRY.—Survey of age of Milton in English literature; critical study of Milton as a master of the epic as illustrated in "Paradise Lost"; Milton compared with other writers of epic poetry. The student will be expected to apply the principles of literary Criticism in this work.

TEXT: Himes' "Milton's Paradise Lost."

REFERENCES: Winchester's "Literary Criticism", Sheran's "Handbook of Literary Criticism," Addison's "Criticism of Paradise Lost."

Senior Class, fall term. Two hours.

7 ENGLISH NOVEL.—Development—its origin, growth and different stages of evolution; Classes—romantic, realistic; study of representative works; lectures on the novel as a reflector of human society; sociological aspect. Student will be expected to apply the principles of Literary Criticism.

REFERENCES: Stoddard's "Evolution of the English Novel," Gross's "The Development of English Novel, Sheran's "Handbook of Literary Criticism," Winchester's "Literary Criticism."

Senior Class, spring term. Two hours.

NOTE.—Students of all classes will be expected to apply principles of previous work. Drills, tests, and examinations may be given on English grammar and rhetoric at any time. Neatness and accuracy must be evident at all times.

## Department of Latin.

E. B. VICKERY, PROFESSOR.

The course of study prescribed in Latin is, in the main, the one adopted by the leading colleges of the country. This course has for its object not only the training of the students in the idioms and forms of expression of the Latin language, but also to furnish the student with the body of thought contained in the literature of the Latin authors. Sight reading and scanning will be emphasized.

As the fountain source of a large proportion of the words in our own tongue, the Latin language must always be studied. In addition to this the cultured man must also be familiar with the philosophy of life and the progress of civilization and literary culture developed by these ancient authors.

The ends aimed at in this department, therefore, are mental discipline, love of literature, the best ethical ideals, and the most approved form of literary expression.

### Course of Study.

COURSE 1.—Entrance Requirements (See general entrance for Freshman Class.)

Selection from Ovid (Bain) and Livy (Burton.)

Latin grammar (Allen and Greenough) and Classic Myths (Gayley.)

Lewis Elementary Latin Dictionary.

Five hours per week. Required of Freshmen.

COURSE 2.—Horace, Odes and Epodes (Moore). Satires and Epistles (Greenough).

Grammar continued.

Five hours per week. Required of Sophomores.

COURSE 3.—De Amicitia of Cicero (Price).

Juvenal (Wright).

Three hours per week. Required of Juniors.

COURSE 4.—Agricola of Tacitus (Gundeman).

Phormio of Terence (Laing).

Two hours per week. Required of Seniors.



# Department of History and Political Economy

W. J. BRADLEY, PROFESSOR.

1.—HISTORY OF MODERN EUROPE.—Embracing the history of Europe from 800 A. D. to the present time. The doctrines and the struggles of the Papacy rather extensively treated. The dawn and development of national Consciousness with its present tendencies and implications receive the merited portion of study. One-half of the total amount of time consumed in this course is devoted to the Nineteenth Century.

Note-Book System, using Heath's "Outline of Medieval and Modern European History."

Text-book: West's "Modern History". Three hours a week. Fall and Spring Terms. Freshman Class.

2.—SOCIOLOGY.—Being a practical study of the nature, functions, organs, and development of society. Due attention to emotional stimuli to social activity. The individual and his relation to society as reflected especially in American polity. Brief resume and statement of the more conspicuous social problems together with some tentative solutions for discussion. Term Thesis.

Text-book: Fairbank's "Introduction to Sociology". Three hours a week, Fall and Spring Terms. Sophomore Class.

3.—POLITICAL ECONOMY.—Brief review of economic history. A careful study of monetary problems, banking, tariff, taxation, monopolies, international trade, and especially the economic function of government. Present economic status and issues and their importance in shaping the policies of political parties. Term Thesis.

Text-book: Bullock's "Introduction to the study of Economics". Two hours a week. Fall and Spring Terms. Junior Class.

4.—POLITICAL SCIENCE.—An exposition of the most prominent theories as to the origin of the State, and a comparative study of the forms and functions of the principal political arrangements of Ancient and Modern times. Term Thesis.

Text-books: Wilson's "The State", Burgess's "Political Science and Comparative Constitutional Law". Three hours a week, Fall and Spring Terms. Senior Class.

# Departments of Art and French

MISS MERRITT, PROFESSOR.

"Art has been defined as the manner in which nature is used for the production of beauty. The material may be language, or the movement of the body, or sound, or life itself, as well as stone; or plaster, or paints, or ink and paper. In the mouldings of all these things Art may arise, so that there lives no human being, how poor soever, who may not beautify his life by art."

Freehand Drawing classes are open to all students. In them the underlying principles of Art, proportion, perspective, and composition are stressed, as well as light and shade. First the simplest objects composed of straight lines are used for models, then curved surfaces are introduced, and after that more complex objects. The lessons are varied by sketching from still-life, from nature, and from life.

The lessons will be supplemented by discussions on the different aspects of Art and its relation to life, and the history of Art will be studied.

A special course is offered in charcoal, crayon, pastel, oils, water-colors and pen and ink to those who may desire it.

## FRENCH.

The object of this course is to enable the student to avail himself of the large number of scientific treatises that are published in the French language and to read with appreciation the master pieces of French literature; to acquire the ability to speak the language, and to gain a knowledge of its grammar. In order to accomplish this an almost equal time is given to reading, conversation, and grammar. Especial attention is given to the study of the idioms of the language.

## COURSE OF STUDY.

1. Introductory Course.—Fraser and Squair's "French Grammar;" reading of short stories; conversational exercises at every recitation.

Required of Freshman Class, entire year. Five hours.

2. Composition and Conversation—Sanderson's "Through France and the French Syntax;" Halevy's "L'Abbe Constantin," Labiche-Martin's "Pour les yeux;" Sand's "La Mare au Diable;" and selected readings;



ART CLASS.



original compositions in French. Recitations are, as far as practicable, conducted in French.

Required of Sophomore Class, entire year. Five hours.

3. *Les Miserables*.—Review of French Grammar; study of Victor Hugo's "*Les Miserables*;" the French and English idioms compared; original compositions in French; conversational exercises; study of the classical French dramatists and the writers of the Romantic school, and selections from them. This year will be devoted principally to a literary study of the masterpieces of French literature with special attention to the peculiar excellence of the French language as a means of literary expression.

Required of Junior Class, entire year. Three hours.

4. FRENCH LITERATURE.—"*Histoire de la Litterature Francaise*;" representative selections from eighteenth century prose; Descartes, Pascal, La Bruyere; selections from Moliere, Racine, Corneille; conversation; business and social correspondence, class reading of the 19th century writers.

Optional with the Senior Class, entire year. Two hours.

### SCHEDULE OF STUDIES LEADING TO A. B., B. S. AND B. Ph. DEGREES.

**Note:** Numbers in parentheses refer to description of courses; those on the right hand margin indicate the number of hours required per week.

#### A. B. Degree.

##### FRESHMAN CLASS.

English (1)-----	5
Mathematics (1) and (2)-----	5
Latin (1)-----	5
French (1)-----	5
History (1)-----	3

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##### SOPHOMORE CLASS.

English (2) and (3)-----	5
History (2)-----	3
Latin (2)-----	5
Mathematics (3) and (4)-----	5
French (2)-----	5

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##### JUNIOR CLASS.

(15 hours per week required.)	
Required Studies.	
English (4) and (5)-----	3
Latin (3)-----	3

##### Optional Studies.

(9 hours required.)

Mathematics (5) and (6)-----	5
Science (3) and (4)-----	5
Philosophy (5) and (6)-----	2
History (3)-----	2
French (3)-----	3

##### SENIOR CLASS.

(15 hours per week required.)

##### Required Studies.

English (6) and (7)-----	2
Latin (4)-----	2

##### Optional Studies.

(11 hours required.)

Mathematics (7) and (8)-----	5
Science (5)-----	5
Philosophy (7)-----	2
French (4)-----	2
History (4)-----	3

## B. S. Degree.

### FRESHMAN CLASS.

English (1)-----	5
History (1)-----	3
Latin (1) or French (1)-----	5
Mathematics (1) and (2)-----	5
Science (1)-----	5
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### SOPHOMORE CLASS.

English (2) and (3)-----	5
History (2)-----	3
Latin (2) or French (2)-----	5
Mathematics (3) and (4)-----	5
Science (2)-----	5
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### JUNIOR CLASS.

(15 hours per week required.)

(Required Studies.)

English (4) and (5)-----	3
Science (3) and (4)-----	5
Mathematics (5) and (6)-----	5

### Optional Studies.

History (3)-----	2
Philosophy (5) and (6)-----	2
Latin (3)-----	3
French (3)-----	3

### SENIOR CLASS.

(Required Studies.)

(15 hours per week required.)

English (6) and (7)-----	2
Science (5)-----	5
Mathematics (7) and (8)-----	5

### Optional Studies.

History (4)-----	3
Philosophy (7)-----	2
Latin (4) or French (4)-----	2

## B. Ph. Degree.

### FRESHMAN CLASS.

English (1)-----	5
Mathematics (1) and (2)-----	5
Latin (1)-----	5
History (1)-----	5
Education (1) and (2)-----	2

### SOPHOMORE CLASS.

English (2) and (3)-----	5
History (2)-----	3
Latin (2)-----	5
Mathematics (3) and (4)-----	5
Education (3) and (4)-----	2

### JUNIOR CLASS.

Required Studies..

(15 hours)

English (4) and (5)-----	3
History (3)-----	2
Philosophy (5) and (6)-----	2

### Optional Studies.

Mathematics (5) and (6)-----	5
Science (3) and (4)-----	5
Latin (3)-----	3
Drawing, freehand-----	3

### SENIOR CLASS.

(15 hours per week required.)

Required Studies.

English (6) and (7)-----	2
Philosophy (5) and (6)-----	2
History (4)-----	3

### Optional Studies.

(7 hours required.)

Science (5)-----	5
Mathematics (7) and (8)-----	5
Latin (4)-----	2

COOKING CLASS.







## **Department of Domestic Art and Physical Culture.**

MISS L. GLADYS MCGILL, Professor.

### **DOMESTIC SCIENCE AND ART.**

The course in Domestic Science is intended to make the students familiar with the best and most economical methods of home making and house keeping. The common facts of science are correlated in their bearing upon house-hold matters. In fact every effort is made to give the young woman a sensible course of instruction in plain every-day cooking, in the simple chemistry of foods, in practical housekeeping, in sanitary arrangements of the home, and in sewing and dressmaking,

Two rooms are set apart and furnished for this department. The course is optional. A small fee to cover actual expenses in cooking is required of each student, and those taking sewing are expected to furnish their materials.

Cooking three hours a week (two periods of laboratory work and one lecture). Sewing two periods a week.

### **PHYSICAL CULTURE.**

All young ladies entering the school are required to take the course in Physical Education.

The course consists of calisthenics, marching, club and dumb bell work, swedish exercises and games. A gymnasium suit is required consisting of regulation bloomers and white blouse and gymnasium or running shoes.

Class meets in afternoons twice a week.

## Department of Business Science

CARL SHULTZ, B. B. S., Professor.

In this age of rapid commercial development and keen competition, it behooves every young person to become educated; and if possible to get some business training. This is true not only of the banker, the merchant, the lawyer, but of the farmer, the mechanic, and the laborer. No one can shirk his business relations with others, therefore, it is desirable that he obtain some of this training in the schoolroom, and thus save himself some high-priced experience.

The modern business house is like a perfectly constructed machine; every employee and employer fitting in, and working with one end in view. The managers, secretaries, bookkeepers, stenographers, clerks, workmen, etc., are simply representatives of the different pieces of the nicely adjusted machine. If any one fails to do his duty, the efficiency of the machine is hindered and everything is thrown out of gear. Consequently, good bookkeepers and stenographers are always in demand.

The fact that our commercial students receive so much academic training, makes our course an exceptionally strong one; producing that roundness of development that is so essential to one's success in life.

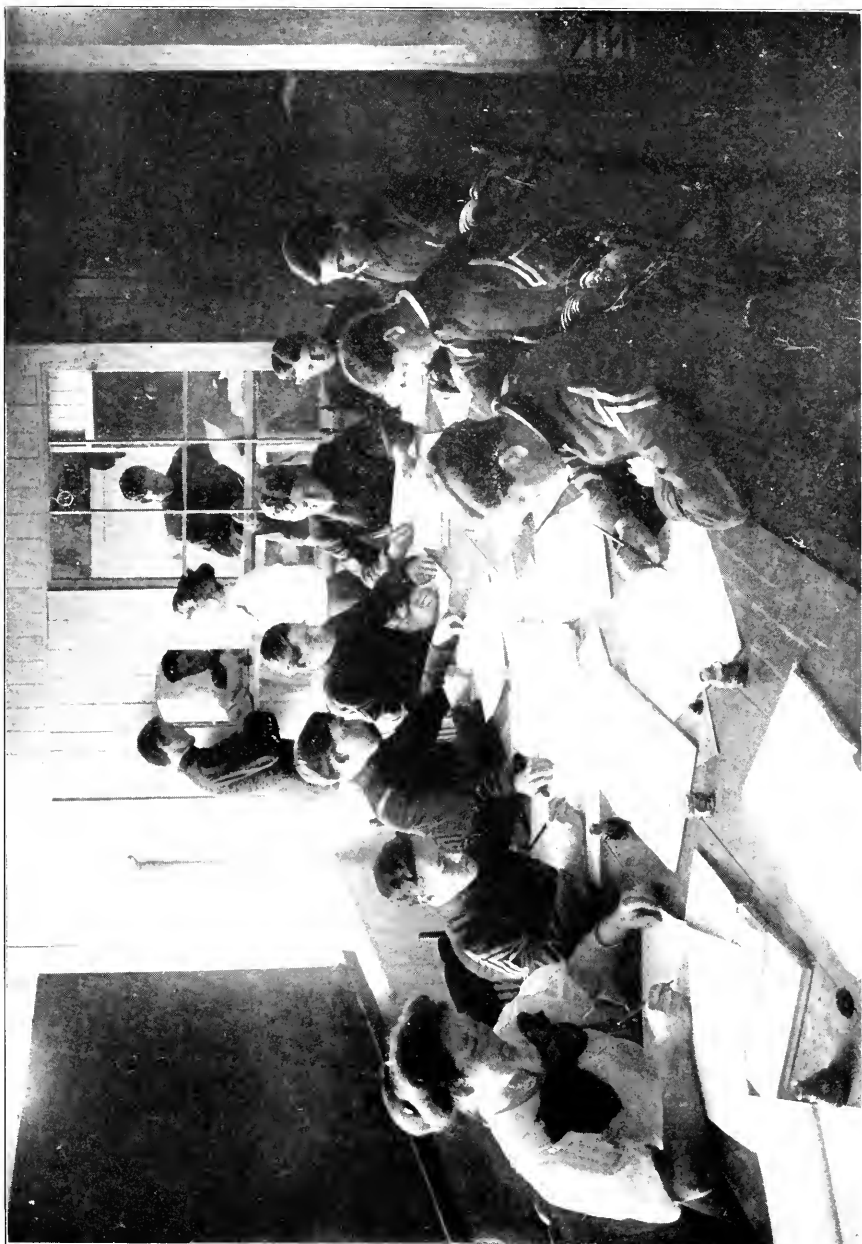
### BOOKKEEPING.

It matters not if one never expects to keep books, he will find a course in bookkeeping beneficial to him in almost every vocation; for it is absolutely necessary that he keep in close touch with his business, but if no record, of that business is kept, this will be impossible. If one gets nothing else, the training in neatness, persistency, and accuracy is well worth the cost and time expended.

### COURSE OF STUDY.

1. BOOKKEEPING.—Single Entry is presented. Changing from Single to Double Entry. Shipping and Commission, Jobbing, Installment Houses and State Agencies, Joint Stock Companies, and Manufacturing.

The students are required to become perfectly familiar with all the books used, and to be able to take a blank page and rule it for any book needed.



BOOKKEEPING.



To be admitted to this class, one must be familiar with Journal, Cash Book, Bill Book, and the Ledger, knowing how to close ledger accounts, and to make balance sheets.

TEXT-BOOK: Williams and Rogers' "Bookkeeping and Business Practice."

Required of the Freshman Class, first and second terms. Five hours

2. **BANKING.**—The student in this class is given a thorough course in banking; he is required to become so familiar with the different books of the bank that he can take a blank page and rule it properly for any book used in a modern banking establishment. Besides this, he will be given actual work in buying and selling, shipping, discounting, collecting, depositing, issuing and receiving all papers incident to the many transactions made, as well as making the proper entries in his different private books, and the different books of the bank and offices. Each student represents a business house and serves his turn in the bank and different offices. The students will be required to organize a bank and to become familiar with the work of the Clearing House.

TEXT-BOOK.—Williams and Rogers' "Modern Illustrative Banking."

Required of the Sophomore Class, first and second terms. Five hours.

3. **ACCOUNTING.**—This is not intended to afford practice in bookkeeping, but to enable students to grasp the significance of accounts. Since however, an understanding of bookkeeping principles is essential for intelligent construction and interpretation of accounts, an examination in certain types of bookkeeping, with abundant practice in their use, will be an important part of the work. However the chief work of the course consists in the study of methods for determining profit, loss, and valuation. The object of this course is to make accountants.

Junior Class, first term. Five hours.

4. **COMMERCIAL LAW.**—This is designed to develop the principles of the law of contracts, emphasis being laid upon their practical application in many varieties of business dealings. It considers, in the first place the formation of obligations, simple contracts, and contracts under seal; and the performance and the discharge of such obligations. The latter part of the course deals with arrangements for the transfer of property, deeds of real estate, and especially contracts of the sales of personal proper-

ty, including such topics as bills of lading, stoppage in transit, warranties of quality, conditional sales, Factors' Acts, and the Statutes of Frauds.

Junior Class, second term. Five Hours.

## TYPEWRITING.

The typewriter is one of the outgrowths of our great business developments and because of its simplicity of construction and ease of operation, many deem instruction in typewriting needless. This feeling has brought disappointment and failure to many who have chosen typewriting as a vocation. While it is possible for any one to write on the typewriter without any special instruction, it is impossible for him to attain the speed, accuracy, evenness of touch, and ease of operation of the trained operator.

The Department is supplied with the best Remington machines, and from time to time the supply is being increased as the number of students demand.

## COURSE OF INSTRUCTION.

1. TYPEWRITING.—To be admitted to the Freshman Class in typewriting, one must be able to take 15 words a minute for three minutes by the touch system. To make a pass in this class, one will be required to write 25 words a minute for three minutes, to know the parts of the machine and how to care for it properly.

TEXT-BOOK: "Rational Typewriting Instructor."

Required of the Freshman Class, first and second terms. Five hours.

2. TYPEWRITING.—This class will be required to write 100 words in three minutes to make the passing mark. Besides this, the class will have exercises in letter-press copying, manifoldng, mimeographing, and actual office practice.

TEXT-BOOK: "Rational Typewriting Instructor."

Required of the Sophomore Class, first and second terms. Five hours.

3. TYPEWRITING.—This class will continue the work of class (2), becoming more familiar with the general use of the machine, and will be required to write 40 words a minute for three minutes to pass.

TEXT-BOOK: "Rational Typewriting Instructor."

Junior Class, first and second terms. Five Hours.



TYPESETTING.





The aim of the entire course in typewriting is not to have the student ready to learn to operate the machine, but to make a good operator of him while he is in school, so that, when he leaves college, he will have lost all of that awkwardness so common to certain classes of business students, and can operate the machine with the elasticity of a trained operator.

## SHORTHAND.

Shorthand is growing in use and popularity as is shown by the large number of schools that have made it a part of their course in the past few years. This is due to the fact that the demand for amanuensis is increasing and our educators are recognizing the importance of shorthand training of students in a physical way aside from the direct use of the art. No other study furnishes as many chances for promotions as phonography, for it puts one in close touch with the business wherever employed, thereby placing him in direct line for promotion when a vacancy occurs.

## COURSE OF INSTRUCTION.

1. SHORTHAND.—The work consists in reading and writing all the shorthand exercises given in the text with special reference to the fundamental principles of shorthand. Word and sentence dictation. The student will be urged throughout the course to make the shorthand characters legible, for without legibility the writing is worthless.

Text-book: Graham's "Standard Phonography."

Required of the Freshman Class, first and second terms. Five hours.

2. SHORTHAND.—Review of text-book and word signs. Letter dictation from different kinds of business. This class will be required to write at least 80 words a minute for three minutes, to pass. When one has completed this course he is supposed to be able to take the letters of any ordinary business.

Text-books: Graham's "Standard Phonography." "Universal Dictation."

Required of the Sophomore Class, first and second terms. Five hours.

3. **SHORTHAND.**—This Course is a continuation of course (2); the student is required to reach a speed of at least 100 words a minute for three minutes. The students will be given exercise in taking lectures, speeches of various kinds, and evidence in courts.

Text-book: Graham's "Universal Dictation Course."

Required of the Junior Class, first and second terms. Five Hours.

### Degrees.

The Degree of Bachelor of Business Science will be conferred on those students who complete the course as outlined in this schedule.

A Certificate of Proficiency will be awarded those students who complete the course through the Sophomore Class.

### Schedule of Studies Leading to the B. B. S. Degree.

#### Freshman Class.

English (1) .....	5
History (1) .....	5
Mathematics (1) and (2) .....	5
Bookkeeping (1) .....	5
Typewriting (1) .....	5
Shorthand (1) .....	5

#### Sophomore Class.

English (2) and (3) .....	5
Mathematics (3) and (4) .....	5
Banking (2) .....	5
Typewriting (2) .....	5
Shorthand (2) .....	5

#### Junior Class.

English (4) and (5) .....	3
Shorthand (3) .....	5
Accounting (3) (Fall term) .....	5
Commercial Law (4) (Spring term) .....	5
Typewriting (3) .....	5
History (3) .....	2

## **Department of Agriculture.**

C. F. NIVEN, Director.

HENLEY WIMPEY, SUPT. FARM.

### **Aim and Object.**

The Dept. of Agriculture in the N. G. A. College stands for thorough training in practical science as relates to the various phases of Agriculture. Its aim is to send out young men fitted by their training to take a leading part in the development of Agricultural resources of the state; to become scientific farmers and horticulturists, prepared to make two blades of grass grow where one grew before; men fitted not only to meet demands made upon them, but to create such demands by pointing out the way to progress and development.

### **THE FIELD OF THE SCHOOL.**

The field of Science of Agriculture is large. The progress of modern science has created new professions, and changed the old ones, until they are beyond recognition. The humble pursuits of the past have been dignified by the concentration of the mind of man upon them, until, to-day, they rank with the professions of a generation ago. Our country offers today, unlimited demand for men and women who have made themselves professional workers in the various phases of Agriculture. The development of agriculture has made the possibilities of the soil so profitable and pleasant that a great portion of the most intelligent people of the land are looking toward scientific agriculture as a profession for themselves and their children. The college of Agriculture believes in the education that fits for life; that trains the head, heart and hand.

### **POSSIBILITIES IN AGRICULTURE.**

The present day learning has created several new professions. One of them is agriculture. Science has been applied to agriculture and its various branches until soils and plants and animals can be made to do the will of the trained farmer. Agricultural education is sweeping the entire country. Congress and the State Legislature are helping it on. The development of agriculture will make it possible for every man and woman who follows farming to make a handsome income, and at the same time live a helpful and happy life. The farm used to boss the man, but now the man bosses the farm if he has acquired sufficient knowledge. The

only serious drawback to the onward march of modern agriculture is the lack of trained workers. The government is calling for more agricultural experts than the country can produce. Every state demands teachers for its high schools. The District Agricultural Schools want teachers of agriculture. The Agricultural colleges are clamoring for more help. The Philippines are taking a great number of agricultural men. Foreign countries are sending for them. There is room in Georgia alone for scores of young men at first class salaries to act in responsible positions. Agriculture is not a crowded profession and the demands for agricultural experts far exceeds the graduates in agriculture.

### **LABORATORIES AND EQUIPMENTS.**

The school of Agriculture is well equipped with laboratories and class rooms. The biological laboratories are in Bostwick Hall and contain equipments for satisfactory work in botany and zoology, instruments such as dissecting microscopes, compound microscopes; students dissecting sets and microtomes are at the disposal of the students.

The soil physics laboratories and dark room for photographic and vegetable physiology work are located on the second floor of Bostwick Hall. The soil laboratory is equipped with all modern appliances for the mechanical and chemical analysis of soils. The room is fitted up with soil bins, electric motor, shaker, centrifuge and other necessary apparatus.

The dairy laboratory is also located on the second floor of Bostwick Hall. It contains two modern Cream Separators and one eight bottle Babcock Tester. Besides these machines the laboratory contains all necessary appliances for the study of milk and cream under different conditions.

### **EXPERIMENTAL FARM.**

Adjoining the college campus is a thirty-acre experimental farm under a high state of cultivation. The farm is divided into plats and a great variety of seed are grown for experimental purposes. The results are published for the benefit of the farmers.

Ample room is provided for the college herd of live stock which is used in connection with the study of animal husbandry.

### **DEGREES AND CERTIFICATES.**

In order to meet the needs of all young men who desire instruction in agriculture three distinct courses are given.

(a) A four-year course which leads to the degree of Bachelor of Science in Agriculture. This course is designed to give a training which is thoroughly practical as well as scientific. The greater portion of the work in agriculture is done in the last two years of this course.

(b) The two-year course is similar to the first two years of the four-year course except that in the second year additional work in agriculture and horticulture is substituted for English and mathematics. Those who complete this work will be given a certificate.

(c) To meet the needs of men of mature years, who are busy on the farm the greater portion of the year, and for the benefit of young men who desire to become better farmers and who feel that they cannot take one of the regular courses in agriculture, a short course has been arranged beginning the first Monday in Jan. and closing the second Friday in March.

### LIBRARY.

The college of agriculture has a well equipped library in which are kept all government bulletins and publications, reference books and the leading agricultural magazines and papers of the U. S.

It is believed that the contact with the books and magazines found in the library is worth a great deal and arouses a desire to know more than books contain. Agricultural students are required to do work in both agricultural library and the college library.

### OUTLINE OF INSTRUCTION.

#### AGRONOMY.

AGRONOMY in its strictest sense, includes four general outlines of studies: Soils, crops, farm mechanics, and farm management. Agriculture No. 3 takes up the elementary study of soil and crops, and serves as an introduction to the several branches of Agriculture, Animal Husbandry, and Dairying.

It is proposed to make agricultural students thoroughly practical. Agricultural success depends upon science; and to understand the principals of agriculture requires a knowledge of many sciences, Physics, Botany, Chemistry Biology and Mathematics.

1-2 AGRICULTURE.—An elementary study of the soil—its formation, texture, plant food, moisture, tillage and fertility; the plant—its relation to the soil and climate, its propagation, growth and cultivation; the

kinds of crops and their culture; the animal—its life, feeding, breeding, and management.

Freshman Class, first term.

3 SOILS.—A study of soil formation and mechanical composition including a special study of the physical problems of the soil as regards texture, tillage, movements of soil water, soil-moisture, conservation, aeration of the soil, draining and warming the soil.

Laboratory work will consist largely in the demonstration and application of the principles of soil physics taught in the class-room both by work in the laboratory and in the field. The students will be given practice work in determining soil moisture, in cultivation methods and in mechanical analysis of soils.

Sophomore Class, first and second term.

4 FIELD CROPS.—This course includes a study of the following: Standard crops as to the origin, development, and special adaption to soil and climate; investigation of new crops.

Sophomore Class, second term.

5 GRASS AND FORAGE CROPS.—This course treats of the different grasses and other forage crops in particular. See field crops.

Junior Class, first term.

6 FARM MECHANICS.—Section of the farm as to location, soil, climate, etc.; different systems of farming; field and crop management and the keeping of farm accounts.

Junior Class, first term.

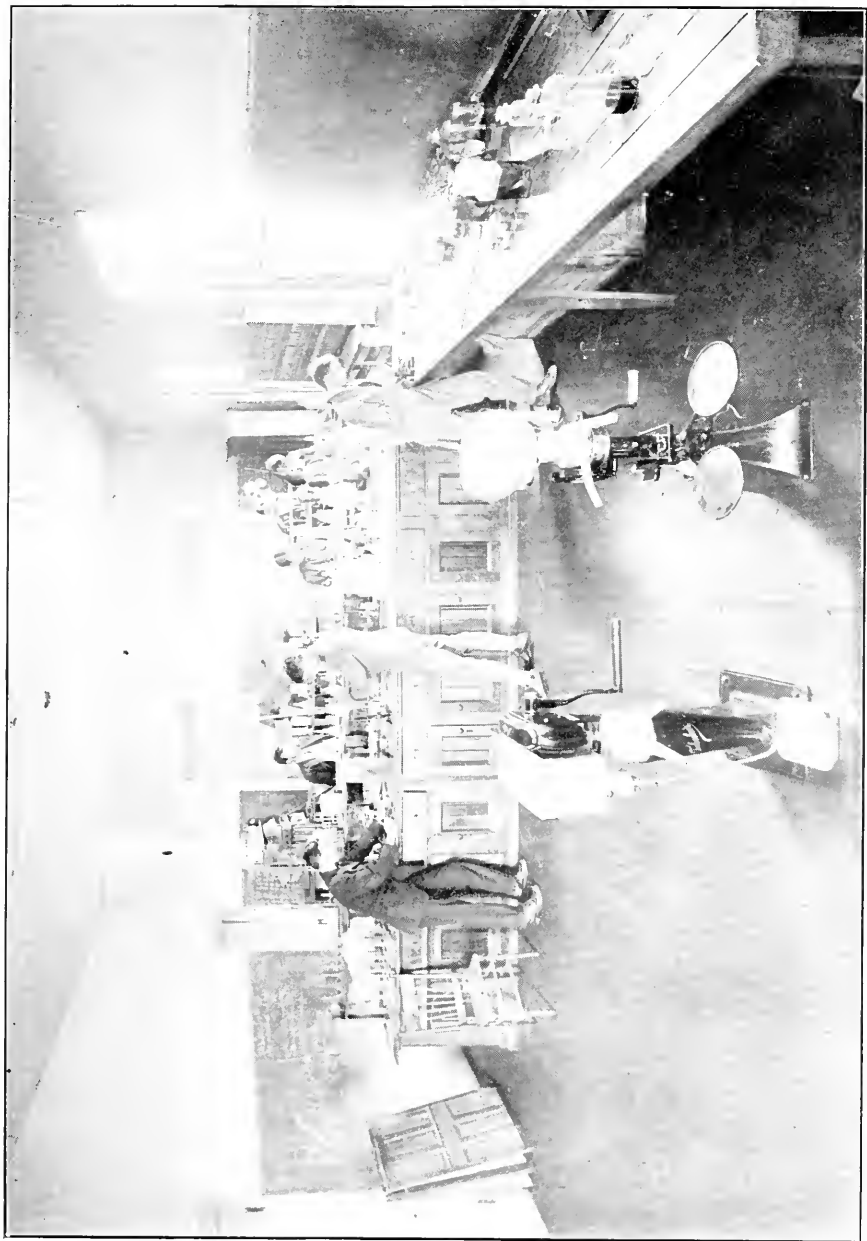
7 FARM MECHANICS.—This special subject will include farm machinery, its invention, history and development; a study of the principles of construction and operation with comparison with the different kinds and classes, according to their adaption for special conditions and uses. The latter part of the term all the time will be devoted to practical and theoretical instruction in terracing, ditching and drainage work.

Junior Class, second term.

## DAIRY HUSBANDRY.

The purpose of this course is to give the student such knowledge and skill as will enable him to return to the farm and select, breed and feed the best dairy animals that is possible for him to obtain; or if he has no farm of his own, opportunities are open for young men, after getting some

AGRICULTURAL LABORATORY.







experiences, to work into farm managers. Machinery is fast taking the place of hand labor, and it is therefore essential to become acquainted with the different appliances and gain an intelligent conception of the principles of mechanics.

1-2 DAIRYING.—Breeding, feeding, recording and judging dairy cattle; general management of dairy herds. Instructions are given in the conditions influencing the quantity and the quality of milk; its secretion, nature and composition; the methods of handling milk for butter and cheese making.

Laboratory work consists in testing milk, cream, skim milk, butter-milk and whey; butter and cheese for fat purposes and methods; the detection of adulteration; testing the accuracy of glassware; Babcock testers and Cream Separators; practice in separation, pasteurizing, refining and churning cream.

Sophomore Class, all year.

### ANIMAL HUSBANDRY.

Successful agriculture depends very largely upon the quality and class of livestock kept on the farm. As the price of farm lands increase, the value of farm crops also increase and it becomes necessary to produce a better class of animals to consume many of the farm crops and convert them into marketable products. Realizing this, the work has been planned to emphasize this fact and to encourage young men to the breeding and improvement of the various classes of domestic animals. The work has been planned with a view of giving a thorough training along the lines of stock judging and selection, stock breeding, feeding, general care and management.

1-2 BREEDS OF LIVESTOCK.—Four hours a week through the two terms, are given to the study of the breeds of horses, cattle, sheep and swine. Each breed is taken up separately and studied from its origin. The methods used in establishing and improving the breeds, and the environments under which they are reared, their importation and popularity in the U. S. are each given due attention, with the idea of making the student familiar with each of the leading breeds of livestock in the country.

Sophomore Class, first and second terms.

3-4 PRINCIPLES OF BREEDING.—This course includes a study of the laws of heredity, variation, atavism, selection, etc.; methods and results

of crossing, inbreeding, linebreeding, etc. The methods employed by the leading improvers of livestock are studied in connection with the application to these laws, and the student is shown how to maintain and improve his own flocks and herds by a knowledge of the fundamental principles of breeding.

Junior Class, first and second term.

5 STOCK JUDGING AND HANDLING.—The animals are brought before the student for their inspection and criticism and a score card is used until the student is familiar with the breed, characteristics and requirements. Practical work in handling livestock, such as throwing animals, administering medicines, trimming hoofs and dehorning.

Senior Class, first term.

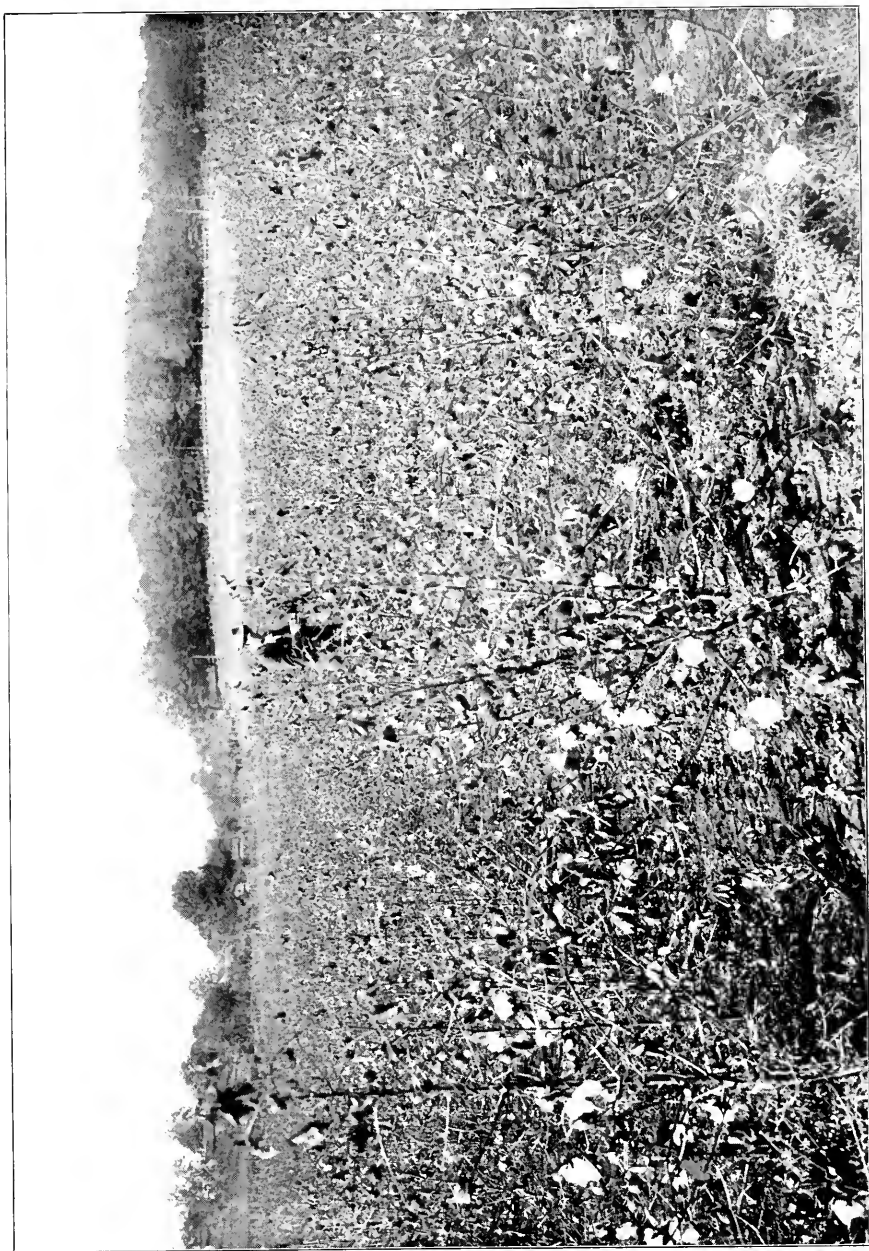
6 FEEDS AND FEEDING.—The practical feeding of the various classes of the domestic animals for the most profitable results is given in this course. The student is shown how to apply his knowledge of feeding standards and tables in the digestive nutrients in feeding—stuffs to actual feed-lot conditions; the most economical combinations of feeds for maintenance, the production of milk and the growing and fattening of the various classes of animals for the market. Special attention is given to the conditions prevailing over our own state. The results of experimental feeding by experimental stations are freely drawn upon in this subject. This course presupposes a year in chemistry.

Senior Class, second term.

## BOTANY.

It is well recognized that Botany is one of the most important of the sciences upon which the practice of agriculture is based, for the reason that Botany deals with plant life, basis of agriculture.

1 ELEMENTARY BOTANY.—This course covers the elements of morphology and physiology. All of the great groups of plants are discussed in the order of their evolutionary development. Especial attention is given to the changes in structure which appear in response to the changes of environment. Emphasis is laid upon the plasticity and adaptiveness of the plant organism. By grasping this fundamental conception at the outset, the facts of plant life, practically studied in horticulture and agriculture become more comprehensible and insignificant. A general study of the classification of the plant kingdom, sufficient to enable the student



COTTON BREEDING.



to understand the broad outlines and the relationship of the reliances secured in this course, by coming in close contact with the plants as living organisms in their natural habits, enables him to become acquainted with the factors that regulate their life and activity.

Laboratory work and trips into the Blue Ridge Mountains form part of the practical work.

Freshman Class, entire year.

## HORTICULTURE.

Students are given instruction and practice as will enable them to become acquainted with the general principles of the plant culture and the practical application of those principles. The work is planned to give such knowledge of horticulture as will best help to increase the capacity of the students for the enjoyment of out-door life and work with plants and to enable them to increase the comforts, beauty and profits of life on the farm.

1. HORTICULTURE.—This work presents the principles of the art introducing the facts underlying the methods of general practice in nursery, orchard and garden work. The planning and planting of groves, orchards and gardens, with notes as to species and varieties adapted to various conditions.

Laboratory work consists in practice in nursery, garden and orchard work, including setting, grafting and cutting, spring pruning, construction and care of hot-beds and cold frames, testing and planting seeds, preparation of garden soils, use of garden tools, making and application of spray mixtures and the use of spray machinery.

Junior class, first term.

2. VEGETABLE GARDENING.—The work of this year is devoted to a study of methods of field operations, including use of fertilizer, seed selection, means of securing sanitary conditions and a brief study of varieties. Vegetable gardening is supplemented with lectures on small fruits, marketing and adaption of principles of location conditions.

Junior Class. Second term.

3. LANDSCAPE WORK.—It is the wish of the college to promote the work of landscape gardening in every possible way. The main object of the course is to give the general student understanding of the fundamental principles of design of good taste as applied to gardening. The

principles of this art studied in relation to their application to the planting, planning of home-grounds, walks and drives, streets, parks and cemeteries. The various trees, shrubs, annuals, perennials, herbaceous plants for securing desired effects are taken up in detail, with special reference to their use under different climates and soil conditions. Gardens of hardy and tender plants are being continually extended. Actual work in practical landscape gardening, laying drives and walks, planning and planting various areas, is constantly in progress on the college campus.

Junior Class. Second term.

4. PLANT BREEDING.—This includes lectures on the methods of improving plants by crossing and selection. This will also consist of practical work in the field, cross pollinating of plants and making selections from pots.

Senior Class. Second term.

## ZOOLOGY.

1. ZOOLOGY.—This course is an introduction to the study of animals—their structure, functions, habits, origin, relationship and classification. The student is first introduced to the simplest forms of animals in which structure and functions are expressed in their simplest terms. From the consideration of these, he passes in a natural manner to the study of higher and more complex forms, thus obtaining a knowledge of the gradual differentiation of structure and correlative specialization of functions so clearly illustrated by the study of types. Special attention is paid to animal ecology—e. g.—the relation of animals to their environment, effect of climate, soil, etc., parasitism, commercialism, natural and artificial selection; the interdependence of species, and the caution which must be observed in interference with these natural relations.

Freshman. First term.

## BACTERIOLOGY.

1. BACTERIOLOGY.—Instruction in bacteriology is given by means of lectures, text-book work, recitations and laboratory exercises. The object of this course of study is to acquaint the student with the various organisms found in the air, water, soil, milk, and the body, and their relation to such processes, as decomposition, fermentation, digestion, and

production of disease. The toxic substances resulting from the growth of organisms are considered, as well as the antitoxins used to counteract their action.

Senior Class. First term.

### **SHOP WORK.**

1. **FORGING.**—This work includes exercises in bending, twisting, shaping, welding iron and making tools, etc. Followed by work in steel, such as tool making, tempering, welding, etc. Required of all agricultural students.

Junior class all year.

### **ENTOMOLOGY.**

This work includes a study of the most common insects affecting fruit trees and farm plants. Their history, habits and methods of eradicating them.

Senior Class.

### **PLANT PATHOLOGY.**

This work consists of a study of the most common fungus diseases of farm plants and of fruits. Their development and methods of preventing same. Laboratory work will consist of collecting diseased plants and making a minute study of same.

Freshman Class.

### **FORESTRY.**

This is a study of the best methods of maintaining the forests, a study of trees, diseases, classification and insect pests.

Junior Class.

### **VETERINARY SCIENCE.**

This includes a thorough study of anatomy of farm animals, the most common diseases affecting these animals, methods of detecting prevention and treatment of same. Laboratory work consists of dissecting and studying the various organs of animals from the standpoint of diseased and healthy conditions.

Senior. Class, All year.

# FRESHMAN CLASS

	First Term	Second Term
Lectures and Recitations:		
Math. (1) and (2.)-----	5	5
English (1)-----	5	5
Chemistry (Science 1.)-----	5	5
Soils (Agronomy 2.)-----	3	
Horticulture (2.)-----		3
Botany (2)-----	2	2
Freehand Drawing-----	2	
Mechanical Drawing-----		2

# SOPHOMORE CLASS

Math. (3) and (4)-----	5	5
English (2) and (3)-----	5	5
Science (5) and (6)-----	5	5
Dairying-----	2	2
Animal Husbandry (1) and (2)-----	1	1
Agronomy (3)-----	3	
Horticulture-----	2	3
Lob. Soil Physics, Afternoon-----		2

# JUNIOR CLASS

	First Term	Second Term
Lectures and Recitations:		
English (4) and (5)-----	3	3
Math. (5) and (6)-----	5	5
General Geology-----		
History (3)-----	2	2
Stock Judging (Animal Husbandry) (5)-----		2
Agronomy (4) and (5)-----	3	
Animal Husbandry (3 and 4)-----	2	2
Horticulture (3)-----		2
Forestry-----	1	2
Lob. in Spraying of Plants, Afternoons-----	2	

# SENIOR CLASS

Shop Work on Mondays-----	2	2
English (6) and (7)-----	3	3
Agri. Chemistry-----	5	5
Horticulture (Plant Breeding)-----	3	
Entomology-----		3
Feeds and Feeding-----	2	2
Vet. Science-----	2	2
(Optional)		
Math. (7) and (8)-----	5	5
Science (5)-----	2	2
Thesis-----		



# Department of Mines and Electrical Engineering

BYRON J. SNYDER, Director

## ARTICLE I—ANNOUNCEMENT.

1. The School of Mines of the North Georgia Agricultural College has been established primarily for the purpose of giving a thorough scientific education, both practical and theoretical, to men studying for the profession of the mining and metallurgical engineer, the assayer, the consulting geologist. The desire is to train men to take more active part in the winning of the mineral wealth of the state and nation.

2. SITUATION.—Dahlonaga is most fortunate as the seat of a mining school. Situated in the heart of the great gold belt, there is within a radius of five miles several of the largest, most extensively equipped stamp Mills in the United States. Within a few hundred yards of the school is situated the fifty stamp mill of the Crown Mountain Gold Mining Co., whose works are always accessible to students of the School of Mines. To the east within walking distance is the plant of the Consolidated Gold Mining Co., a fine example of an up-to-date one hundred and twenty stamp mill. It has in connection an Edwards roasting furnace of a capacity large enough to handle the concentrates from more than 36 van-ners. By courtesy of the management the students have access to all these plants.

3. ENVIRONMENT.—The nearer a School of Mines is to a neighborhood of mining, the nearer such a school is to the atmosphere of mining operations, the more potent we find its influence. Nature herself could not have selected a spot more suitable for a mining school than Dahlonaga. Dr. Glenn and the Trustees of the North Georgia Agricultural College have been keenly alert to the existing environment which harmonizes with the work of the mining student both present and future. The mineral possibilities of the country in and around Dahlonaga and especially to the north are very great. Rare opportunities are here offered to the student of mineralogy and geology. Rocks of various geologic age are here extremely well represented and economic deposits of many rare and valuable minerals exist in varied form.

4. INSTRUCTION.—The method of instruction includes lecture, textbook, laboratory and recitation work.

The metallurgical laboratory equipment is especially good, consisting of muffle and wind furnaces, jaw and gyratory crushers, samplers

classifiers, gold and silver balances, etc. The course in Assaying and all Metallurgy is especially strong.

5. MINERALS.—A working and a museum collection of hundreds of specimens gathered from home and abroad makes the department of mineralogy extremely interesting.

6. DRAWING.—Mechanical Drawing as applied to all the phases of engineering receives our close attention. The drawing department is well equipped with tables, etc.; the course ranks second to none in the United States.

7. RESUME.—With all these advantages we feel justly proud and can conservatively proclaim The School of Mines of The North Georgia Agricultural College as offering advantages for the study of Mine Engineering as are rarely met with at any one place.

## ARTICLE II—REQUIREMENTS FOR ADMISSION

1. The classes in the School of Mining are open to all who are proceeding to a diploma or a degree. Students are required to pass the Matriculation Examination or an equivalent thereto, and must follow the courses as hereafter mentioned.

2. REGISTRATION.—All students are required to show their entrance tickets and paid up laboratory fees before they will be registered for work in this course.

3. ADMISSION BY EXAMINATION.—Students who desire to become candidates for a degree are admitted on examination in the following subjects:

English.

Arithmetic and Metric System.

Bookkeeping.

Algebra, through Quadratic Equations.

Geometry—Plane, Solid and Spherical.

Physics or Chemistry.

French or German.

4. ADMISSION BY DIPLOMA.—Candidates who are graduates of the proper course of a high school, the grade of whose work is on a par with that of this institution, will be admitted upon presentation of diploma.

5. ADMISSION TO ADVANCED STANDING.—Graduates of approved colleges are admitted upon presentation of their diplomas or certificates of graduation.

6. SPECIAL ARRANGEMENTS.—In many cases persons who have been engaged in practical work and desire to better their condition by systematic training and who are not candidates for a degree may be permitted to take special studies. Such men often prove to be among the best students since they realize clearly the purpose of their work and the value of time.

7. ATTENDANCE.—Students are required to attend 80% of class lectures before permission will be given to write on examinations and 80% of laboratory hours before work will be certified. Exemption from this rule can be obtained only on application to the faculty.

8. COURSES.—All students must take the subjects required in their courses in conformity with the calendars of their years of attendance. If a student wishes to change his course he must first obtain permission of the faculty.

9. DEGREES.—The School of Mines offers the degree of Engineer of Mines, E. M.

The conditions under which this is given are as follows:

To obtain this degree the student must have been a resident student of this institution for at least one full year prior to graduation.

All students for the above degree of Engineer of Mines are required to have had at least two years training in both Geology and principles of Mining.

The course is strictly a four years course.

10. THESES.—All seniors in the E. M. course carry on special investigations during the spring term and the results are embodied in a thesis. This work must be of a mining or metallurgical character, and is under the direct supervision of the professor in charge. Each senior shall submit to the faculty not later than Jan. 15th. a thesis title which must be approved by the instructor concerned. The submitted thesis must be of typewritten form on nine by eleven inch paper bound in pamphlet or book form, and must be handed to the director not later than May 15th. This thesis is filed with the librarian as a permanent record for future reference.

11. **EXCURSIONS.**—Part of the course consists of visiting mines, dredges and metallurgical industries in the vicinity of Dahlonega where practical information may be had. Short trips of one day's duration are quite frequent, while at some time during the year a more extensive trip is taken by the upper classmen of this course; usually to a noted mining section of the south. While on these trips the geology of the section is thoroughly investigated. All students of the E. M. course are required to take these excursions. Expeditions of this kind afford the student abundant opportunities for collecting data, materials suitable for memoirs theses etc.

### ENGLISH.

There is a growing appreciation of the value, in practical affairs, of the ability to use language with ease, clearness, and forcefulness. The importance of English composition as a mental gymnast is being acknowledged as never before, and more and more instructors in technical schools are recognizing the fact that it is an essential part of an engineer's education.

NOTE: See department English 5 and 6.

### MATHEMATICS

1. **ALGEBRA.**—The course begins with a review of Quadratics, continuing with the Theory of Equations, Probability Series, Binomial Theorem and a thorough study in Series.

Freshman year, first term. Five hours per week.

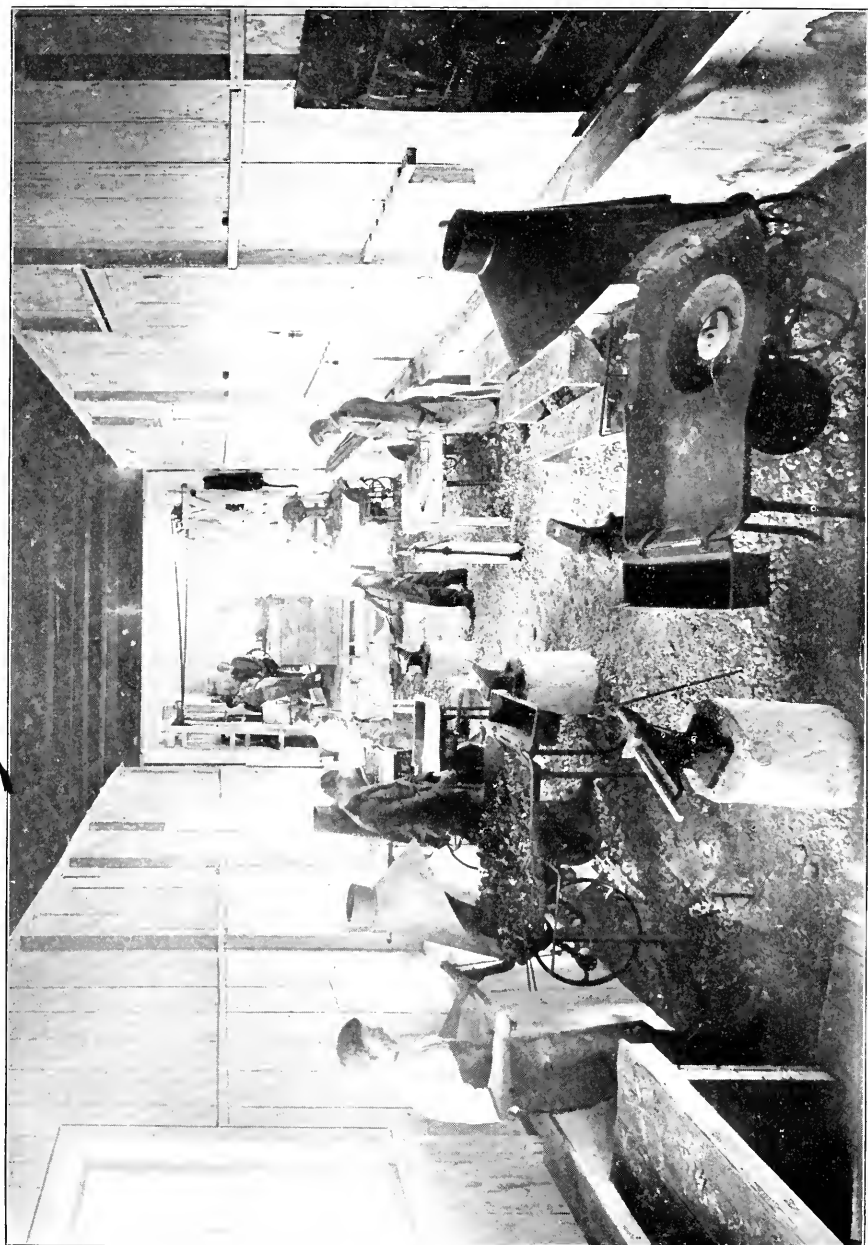
TEXT-BOOK: Wentworth's "College Algebra."

2. **TRIGONOMETRY.**—Plane and spherical trigonometry, including a working knowledge of Logarithms and the use of tables. Many practical problems are given to the students to be worked out.

Freshman year, second term. Five hours per week.

TEXT-BOOK: Well's "Complete Trigonometry."

3. **ANALYTICAL GEOMETRY.**—The point, straight line and circle are treated quite fully, the conic sections are defined, and the general theorems (relating to tangents, normals, poles and polars, and diameters) are derived. The Conic Section. The nature of the conic corresponding to the general equation of the second degree is determined. Solid Analytics are studied with a view to the analogous forms of equations in Plane and Solid.



SHOP, MINING DEPARTMENT.



Sophomore year, first term. Five hours per week.

TEXT-BOOK: Ashton's "Plane and solid Analytic Geometry."

4. CALCULUS.—Differential Calculus. Differentiation; also the general nature and use of Integral Calculus is explained. Regular courses I, II, III, and IV in Mathematics.

Sophomore year, second term. Five hours per week.

TEXT-BOOK: Murray's "Infinitesimal Calculus."

5. CALCULUS.—Integral Calculus. A continuation of Course 4 in which integration of various functions with its application to plane curves, areas, surfaces, volumes, centers of gravity, moments of inertia, is taken up.

Sophomore year, first term. Five hours per week.

TEXT-BOOK: Murray's "Infinitesimal Calculus."

### MECHANICAL SECTION.

1. MECHANICAL DRAWING.—All efforts during the early part of the work are directed toward making the student thoroughly acquainted with, and exercised in. The proper use of his drawing instruments and drafting supplies in general. The work then proceeds with mechanical and free-hand lettering, line shading, tinting, shading with tints and conventional tints for different materials. There are eight of these mechanical sheets, a title page for the mechanical sheets and a title page for the descriptive geometry sheets. These two title pages may be a part of the second term's work.

It is desirable that students taking preparatory work in the lower courses, take an elementary course in this work such as given for the B. S. students. (Optional.)

The instruction in the art of drawing is designed to give prominence to such branches of the subject as are of most value to the practicing engineer. It is required that the instruments used shall be of the best. The following are required:

One  $5\frac{1}{2}$ -inch compass.

One  $3\frac{1}{4}$ -inch bow spacer.

One  $3\frac{1}{4}$ -inch bow pencil.

One  $3\frac{1}{4}$ -inch bow pen.

One 5-inch ruling pen.

One  $30^{\circ}$ - $60^{\circ}$ -triangle.

One  $45^{\circ}$ -triangle.

One curve.  
One 30-inch T square.  
Two bottles of ink.  
Eight thumb tacks.  
Three rubbers.  
Two pencils.  
Twelve pens.  
One penholder.  
Penwipers.  
Chamois.  
Cloth board-covers.  
One file pencil-sharpener.  
One 15-inch adjustable curve.  
One 12-inch white-edged scale

### CIVIL SECTION.

1. SURVEYING—Instruction is given in the theory of the adjustment of the transit and level, the principles of land surveying, topographical surveying and railroad work. The theory of the Plane Table and also that of the Aneroid Barometer are given.

TEXT-BOOKS: Johnson's "Theory and Practice of Surveying," Pence and Ketchum's "Surveying Manual."

(a) FIELD SURVEYING—The course consists in adjusting instruments, traverse surveys, calculation of areas and distances, stadia work and the laying out of a short railway line. All the problems are plotted in the office and the calculations made in a regular book kept for that purpose. Sophomore year, second term.

(b) MINE SURVEYING—Under this head will be considered the theory of the determination of the true meridian by means of the various solar attachments and by direct observation of the sun and of a circum polar star; a careful discussion of the principles and methods used in locating and patenting mining claims, and in underground surveying, will be given. The lectures delivered on these subjects enter into the detail with which they are connected and touch upon the Mining Law relating to surveyors and the patenting of mining property. The remaining time will be devoted to the outlines of the subject of geodetic surveying.

Sophomore year, second term. Two hours.



2. **THEORETICAL MECHANICS**—This course consists of the theoretical study of mechanics and materials. Statics of a material point and of rigid bodies; centers of gravity; chains and cables; moments of inertia of plane figures, stresses and strains, tension, shearing, compression, torsion, flexure, combined torsion and flexure, elastic curves, safe loads, applications to commercial forms, oblique forces, columns, continuous beams. Dynamics of material point, Impact, Virtual Velocities, Centrifugal and Centripetal Forces, Moments of Inertia of Solids, Pendulums, Dynamics of Rigid Bodies, Work, Power, Energy, Fly-Wheels, Friction Dynamometers, Belts.

Junior year, second term. Four hours per week, lectures and recitations.

**TEXT-BOOK:** Church's "Mechanics of Engineering with Notes and Examples," "Cambria Steel Hand Book."

3. **MECHANICS OF MATERIALS**—Theory of stress, strain, and elasticity and its application to the design of members of machines and structures; a discussion of the properties of the materials of engineering construction.

Junior year, second term. Three times per week.

4. **HYDRAULICS AND HYDRAULIC MOTORS**—This course is given partly by lectures, and partly by recitations; it embraces hydrostatics, the flow over wires, through orifices, through pipes, flumes, ditches and conduits of various forms. It also includes an elementary study of the various types of hydraulic machinery.

Senior year, first term. Five times per week.

**TEXT-BOOKS:** Church's "Mechanics of Engineering," and "Hydraulic Motors."

5. **CONTRACTS AND SPECIFICATIONS**.—This course is designed to give the student enough knowledge of the subject to set firmly in his mind the need of a lawyer in case of large undertakings; to show him the position of the engineer as an expert witness and to give practice in the writing of specifications.

Senior year, second term. Three hours per week.

**TEXT-BOOKS:** Johnson's "Contracts and Specifications."

## **METALLURGY**

The work in this department is designed and planned to give students a thorough and systematic training in the art of all branches of Metallurgy.

With the limited time at our disposal it is impossible to give students the skill coming from long practice, but it is the aim of this department to train men to become useful immediately upon their entrance into the practice of their chosen profession. All metallurgical courses are accompanied by metallurgical problems which give the student a technical command of the subject.

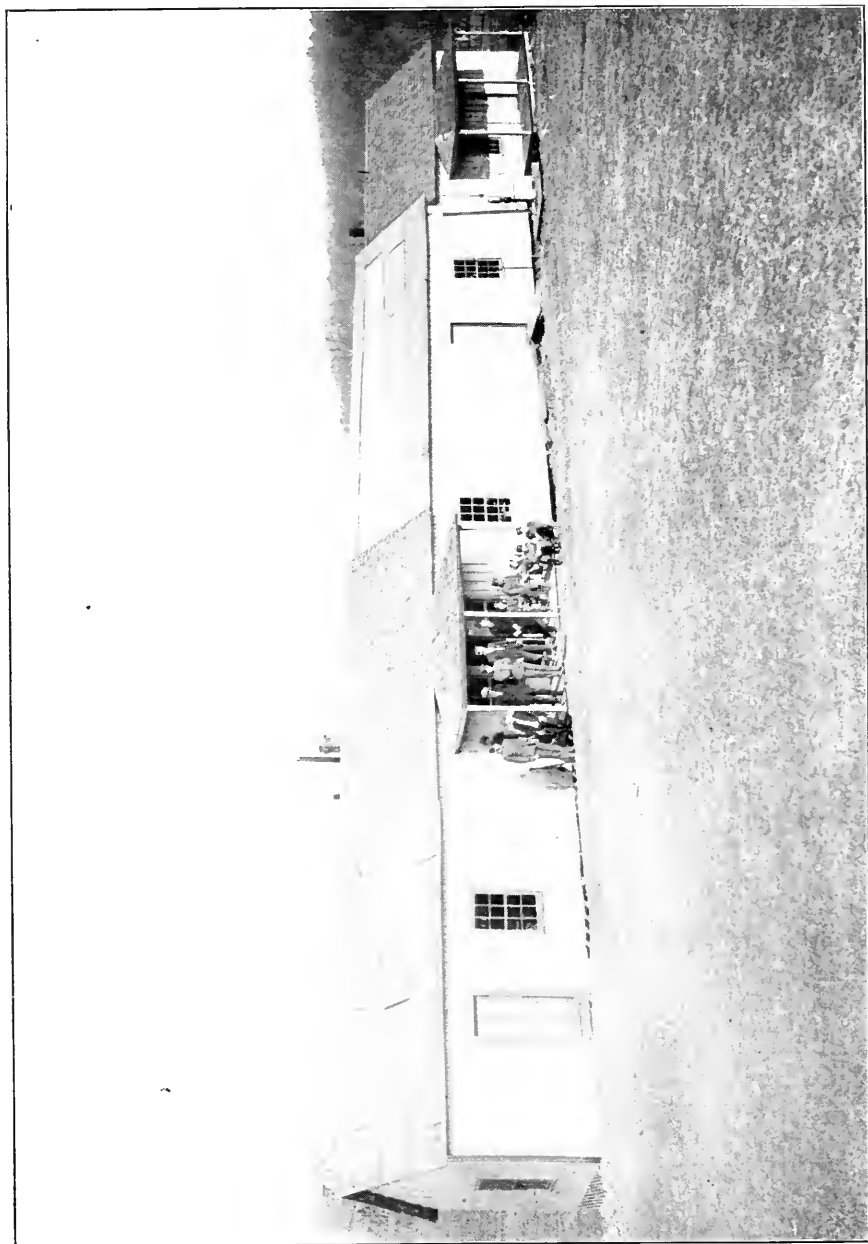
1. **ASSAYING.**—Lectures and recitations once a week, sixteen weeks, winter and first half of spring term, and one hundred and twenty hours of laboratory work, including half an hour daily recitations. To be preceded by Qualitative Analysis and Mineralogy.

The Fire-Assaying comprises: Assay of ores and metallurgical products for silver, gold and lead by scorification and crucible methods; also the assay of silver bullion, base bullion, of rich silver sulphide for gold and silver, of cyanide solution for gold, of copper for silver and gold, and the assay of ores and products containing metallics.

**METALLURGY.**—This course is arranged to meet the requirements of the mining engineer, as well as for those who are intending to specialize in metallurgy.

The instruction covers the following:

1. Ores, their characteristics, classification and qualities.
2. Sampling of Ores and products.
3. Preparation of Ores, crushing, and the kinds of fineness of crushing
4. Combustion, Fuels, natural and artificial, manufacture of fuels, gas producers and apparatus.
5. Roasting of Ores and Roasting Furnaces and the Chemistry of Roasting.
6. Refractories.
7. Gold Milling, Roasting, Cyaniding, Chlorination.
8. Silver. Ores and their occurrence. Roasting, Hyposulphite leaching, Russell process. Cyaniding of silver ores.
9. Copper. Ores of Copper. Roasting, blast furnace matte smelting, pyritic smelting, reverberatory matte smelting. Smelting of oxidized copper ores to pig copper. Copper converting. Hydrometallurgy of copper.
10. Lead. Lead and its ores, classification and sampling. Crushing, roasting, and bedding. Smelting lead ore for lead only. Calculation of charges. Cost in smelting.



MINING BUILDING.



11. **FUELS, IRON AND STEEL**—Historical sketch. The relation of Metallurgy to Chemistry. Properties of the metals, alloys, brasses and bronzes. Thermo-treatment of metals. Fuels in the solid, liquid, and gaseous state; their occurrence and manufacture.

Refractory materials, their occurrence, properties, manufacture and uses. Pyrometry and Calorimetry. Furnaces, different types used for various metallurgical operations. Blowing apparatus. Hot Blast stoves. Typical metallurgical processes. Sampling of ores and metallurgical products. Roasting of gold, silver, copper, lead zinc, and iron ores.

This is followed by the metallurgy of iron and steel from the ore in the mines through the various processes of the modern steel works to the commercial products viewed on every side.

Junior year, first term. Five hours per week.

**TEXT-BOOKS:** Sexton's "Refractory and Fuel Materials," Greenwood's "Steel and Iron."

3. **LEAD AND ZINC**.—This course is a lecture course with short quizzes every week. The kind of ores, methods of handling and treating them in different localities, together with detail work on the smelter layout, covers this ground thoroughly. Appropriate trips will be taken during the work.

Junior year, second term. Five hours per week.

4. **ORE DRESSING**—A detail study of the handling of ores and getting them into shape for metallurgical treatments. Crushers, stamps, jigs, screens, concentrators of various descriptions, stamps and the detailed study of mill construction and arrangement is made. Work in neighboring mills will be arranged so that students will have practical experience in this line of work.

Senior year, first term. Five hours per week in class-room; two hours per week laboratory.

5. **METALLURGY OF GOLD**.—Occurrence and properties. Various processes of extraction. Stamp Milling. Extraction by amalgamation. Extraction by Chlorination. Extraction of Cyaniding. Arrangements of plants and typical mills. Melting and refining of gold and parting of gold and silver bullion.

6. **METALLURGY OF SILVER**—Occurrence and properties. A general discussion of various processes for the extraction from ores. The Patio

process. The Washoe process. The Combination process. The roasting and pan amalgamation. The Boss process. Wet processes. Refining of silver bullion. Purchasing, sampling and testing.

7. **THE METALLURGY OF COPPER**—Smelting in reverberatory and blast furnaces. Pyritic matte smelting. Concentration of mattes by various processes. Wet processes of treating mattes and ores. The study and calculation of the furnace charges, and slag. Bessemerizing. Process of refining in reverberatories and electrolytic refining.

Senior year, second term. Five hours per week.

**TEXT-BOOKS AND REFERENCES:** Rose's "Metallurgy of Gold," Collins' "Metallurgy of Silver," Eggleston's "Metallurgy of Silver," Schnabel's "Hand Book of Metallurgy," Richards' "Stamp Milling of Gold Ores," Peters' "Modern Copper Smelting," Long's "Matte Smelting."

8. **ZINC**.—The Ores of Zinc, Roasting, Retorting and furnaces.

9. Estimates of works or plants, profit of plants, etc.

10. **NICKEL, MERCURY, TIN, ANTIMONY, CADMIUM**—The metallurgy of these metals are discussed only briefly.

### **METALLURGICAL LABORATORY PRACTICE.**

11. Senior year, fall term. Three hours a week.

The instruction comprises laboratory and recitation work as follows: Amalgamation.

Leaching methods for the extraction of gold, silver and copper.

Properties of refractories.

Properties of copper.

Roasting, oxidizing, etc.

Metallurgical calculations.

**METALLURGICAL PROBLEMS**—This course has reference to the designing and proportioning of various types of furnaces for special duties and conditions. It will call for a clear conception of metallurgical principles.

Senior year, first term. Three periods.

The Alternative, Electrometallurgical problems will cover the design and estimates for a copper or copper-nickel refinery.

### **MINERALOGY**

The work in this department is intended for students taking the course of mining engineering and metallurgy.

1. MINERALOGY.—The work in this class intended as a preparation for those entering upon the studies of geology and petrography, mining and metallurgy. The class should be taken after Junior chemistry and Junior physics. A knowledge of Chemistry and Physics is necessary for a proper comprehension of the subject. The regular work consists of a course of lectures and demonstrations on crystallography at the beginning of the fall term, illustrated by lectures on the physical and optical properties of minerals, the description of about forty prominent Georgia minerals, practical work in the determination of these by means of the blowpipe and field tests.

Each student is supplied for the session with a quantity of minerals for which he is held responsible. The practical work of the class is conducted in the mineralogical and blowpipe laboratory where are located the specimens of commonly occurring minerals. Students are taught to recognize minerals by simple field tests, such as form, color, streak, hardness, specific gravity, etc. For this work students must provide themselves with a pocket lens, knife, streak plate and magnet.

Students are urged to make use of the museum and of the extensive collection of rock and mineral specimens provided for them in the mineralogical department.

Freshman year. Three times per week.

TEXT-BOOKS: Moses and Parson's Mineralogy and Blowpipe Analysis.

BOOKS FOR REFERENCE: Eakes "Tables," 2nd ed., Kelbeek's 6th ed. of Plattner's "Probirkunst mit dem Lothrobre."

Books from the Department Library and from the Professor's private library may be obtained from the Professor.

2. MINERALOGY.—The work of this class is intended for those taking advanced work in geology, petrography, and determinative mineralogy.

The regular work consists of a course of lectures, two hours per week, dealing with the physical properties, etc., of minerals, illustrated by specimens from the lecture cabinet. Essays on prescribed subjects are required.

TEXT-BOOK: Dana's "Text-Book of Mineralogy" 1906. (Wiley & Sons).

BOOKS FOR REFERENCE: Miers' "Mineralogie," Tschermaks' "Mineralogie," Brauns' "Mineralreich."

Sophomore year. Five times per week.

3. **MINERALOGY.**—"ECONOMIC MINERALOGY"—A course of lectures, treating of the occurrence and uses of minerals.

The following minerals and mineral substances will be treated: Petroleum, Asphalt, Graphite, Diamond, Gorundum, Feldspar, Kaolin, Mica, Asbestos, Phosphates, Gypsum, Nitre, Borax.

The requirements of the course I and II will be specified at the beginning of the fall term.

1. **BLOWPIPE WORK.**—In this course only the most characteristic relations of the more commonly occurring elements are presented, namely, those which will be found necessary for the proper determination of the minerals presented in the course in Determinative Mineralogy.

Sophomore year. Thirty hours total.

**TEXT-BOOKS.** Moses and Parsons' "Mineralogy, Crystallography and Blowpipe Analysis."

2. **Lithology.**—The course is elementary in character; the igneous rocks are studied with reference to texture and mineral composition, and the sedimentary rocks with reference to structure and composition.

Sophomore year, second term. Laboratory work, one afternoon per week.

**TEXT-BOOKS.** Kemp's "Handbook of Rocks."

## **GEOLOGY**

The instruction in this department is adapted to the needs of the prospector, the mining engineer, and the professional geologist. Provision is also made for persons who desire a knowledge of the subject as a part of a general education. Graduates and others who wish to pursue some special line of investigation or who desire to work up material collected by themselves, will have every facility placed at their disposal.

Students have access to the Geological and Mineralogical museum, which contains a large number of specimens illustrative of petrography, palaeontology, economic minerals, and general geology of the United States and especially of the State of Georgia.

Advice concerning field work in Geology during the summer vacation will be given by the Professor.

Working hours will be arranged to suit the class at the beginning of the Fall term.



1. GENERAL GEOLOGY—A study will be made of structural and dynamical Geology in connection with their bearings on economic problems.

Opportunities will be offered for those wishing to prosecute any special line of investigation. Students are advised to devote as much time as possible to field work during the preceding long vacation. Students are expected to supplement their reading by a study of the collections given below.

Entire Junior year, first term, five times per week; second term, five times per week.

TEXT-BOOKS. "Elements of Geology," (Norton). Chamberlain and Salisbury's "Geology," Vols. I, II, and III. "General Geology." (Scott)

BOOKS FOR REFERENCE: Geikie's "Field Geology," Zittel's "History of Geology," Nicholson's "Palaeontology," Zittel's "Palaeontology," Dana's "Manual of Geology."

2. ECONOMIC GEOLOGY—Students are required to take part in the excursions to various mines in the neighborhood of Dahlonega.

Lectures on the origin, modes of occurrence and uses of metals and their ores; materials used in the production of light and heat; minerals used in chemical manufacture; salt, brine, mineral waters, cements, refractory materials, abrasives, gems and precious stones.

TEXT-BOOKS AND BOOKS OF REFERENCE: "Economic Geology of the United States," (H. Ries). "Nature of Ore deposits," Beck (Weed's Translation). "Ore Deposits of the United States and Canada," (Kemp).

Senior year. Three times per week.

3. GEOLOGICAL SURVEYING.—This work comprises instruction along the general plan of geologic survey as carried on by the United States Geological Survey. Maps, folios, etc., are studied and practical field work takes place in the spring term.

Senior year, second term. Lectures, two times a week.

4. ROCKS AND ROCK WEATHERING.—This course is intended for students who are regular students in the School of Agriculture but who desire to obtain more special training along lines of soil and soil disintegration, etc.

The occurrence, composition, texture, structure, and alteration of rocks to soil will be considered in detail.

BOOKS FOR REFERENCE: "Rock Weathering and Soils." (Merrill).

5. **FIELD CLASSES IN GEOLOGY.**—The attention of students and others is called to the practical study of geology, mineralogy, and prospecting methods. Some of the chief mineral localities of the Dahlonega District are visited each session and abundant opportunities are offered for collecting specimens and studying modes of occurrence of substances of economic value.

### **MINING SECTION**

**MINING.**—This course may be outlined as follows: Hoisting, under which will be considered, motive powers, ropes, gallows-frames, receptacles and safety appliances and pneumatic hoisting. Haulage: a discussion of the different systems of underground and surface transportation, including aerial ropeways. The drainage, ventilation and lighting of mines. Explosives, the theory of blasting, pointing and charging holes; methods of firing. Methods of breaking ground. Boring, diamond-drill work, and the percussion methods. Instruction is given in methods of shaft sinking, tunneling, mine timbering and exploitation, hydraulic mining, ore deposits, mine management and the employment of labor, mine examinations, sampling of ore bodies, estimation of the ore which can be measured, and the valuation of mining properties.

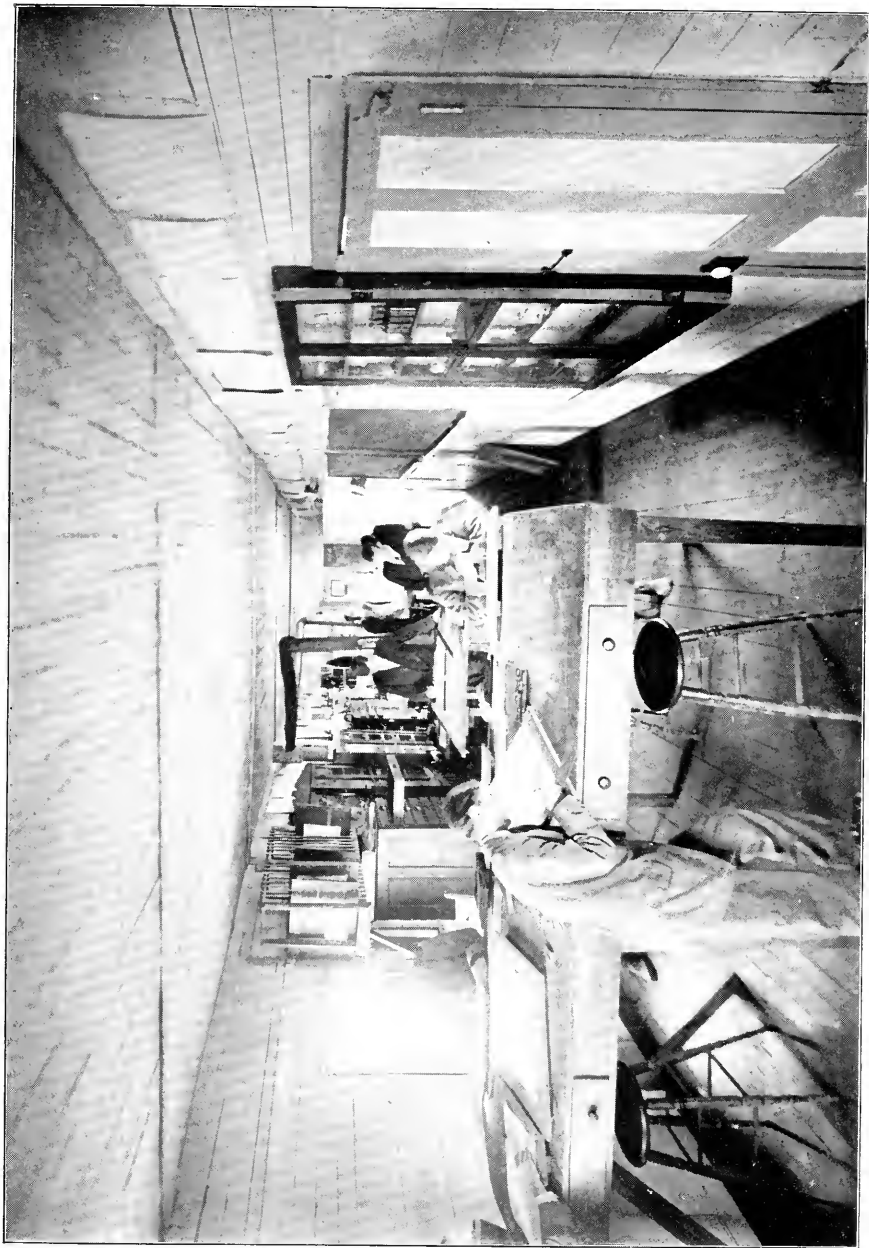
**ELEMENTARY MINING.**—This short course is primarily to outline the principles on which the science of Mining Engineering is based, and is designated to introduce the student to fundamentals which will enable him to appreciate the applications of other studies of the Freshman and Sophomore years.

Freshman year, lectures first term, four hours per week; second term, three hours per week.

**ORE DEPOSITS.**—Conditions which produce and indicate them; their nature and origin; their affinity with certain conditions and rocks, and their classification. These lectures are supplementary to the study of economic Geology.

**PROSPECTING.**—Methods used in prospecting for lode, placer and coal mines. Location, laws and requirements of mineral prospects and their examination.

**MINE DEVELOPMENT.**—Preliminary consideration of conditions affecting the probable success or failure of mining operations in any particular locality; fuel, water, food supplies, transportation facilities and costs. Location of development workings. Choice of methods of approach.



DRAFTING ROOM, MINING DEPARTMENT.



Blocking out the ore for measurement. Systematic methods of obtaining accurate samples of ore, "in place" and on the dump. Methods of estimating the value of the mine.

**BORING.**—Use of bore holes. Methods of boring. Boring by percussion. Methods by rods and by ropes. Boring tools, casing, recovery of lost tools, etc. Rotary boring. Earth augers. Diamond drills worked by hand and by machinery.

**EXCAVATION.**—Tools for breaking ground. Hand tools, machine tools, steam excavators and maintenance. Theory and practice of blasting. Kinds and effects of explosives. Location of holes. Charging and firing holes, singly, simultaneously, and in series. Precautions in blasting. Substitutes for explosives.

**MINING METHODS.**—Works for approach and underground communication. Shaft sinking. General principles. Protection of shaft mouth. Methods of sinking, ventilating, hoisting and unwatering during sinking. Winzes—location and methods of sinking and upraising. Tunnels, drifts, gangways, adits, slopes, contour levels. Advancing by single breast, and by benches. Trimming up and maintaining alignment.

Works for winning minerals. Stopping. Overhand and underhand stopping methods; their application and limitations. Cross-cut methods for wide veins. Contouring, and application of cross-cut methods to masses. Stripping. Methods suitable for soft ore bodies. Pillar and breast methods and their variations. Long-wall advancing and retreating methods. Methods applicable to steeply inclined coal seams. Chutes; "ore mill," loading bins, staging for overhand work, storage of "deads" or waste, gob walls, robbing of pillars, etc.

Junior year, first term, one period per week; second term, three periods per week.

**PLACER MINING**—Includes work as carried on by individual miners; by use of hydraulic equipment and by dredging.

**SUPPORTS.**—Timber, kinds of timber used for supporting excavations, dry rot, processes used for the preservation of timber, modes of timbering levels, shafts, winzes, stopes and other excavations, masonry and iron or steel supports for similar purposes, special methods of support in the cases of watery and running strata, compressed air, freezing and other

processes, saving of timber resulting from the adoption of saving and filling methods.

**TRANSPORTATION.**—Underground. Wheelbarrows, their limit of efficiency. Cars—types, capacity, and maintenance. Tracks—gage; weight of rail; ballasted and unballasted and paved; turnouts; turn-tables and plates, cross-ties; sectional portable track. Haulage; man and animal power; rope traction by single, main and tail and endless rope, gravity roads; chain traction; underground locomotives; electric traction. Surface transportation; electric and endless cable traction; aerial wire rope tramways—single and double rope systems.

**Hoisting.**—Head frames, temporary and permanent. Winding drums and engines—types and efficiency. Koepe endless rope system of hoisting. Cables—kinds, efficiency, maintenance and inspection. Buckets; kibbles; cages; skips. Safety appliances to prevent fall of cage or skip; to prevent overwinding. Signalling.

**LOADING AND UNLOADING WORKS.**—Dumping frames or chairs; tipples; elevating and conveying machinery for handling ores and coal; terminal facilities.

**DRAINAGE.**—Preventing access of surface water; adits or draining tunnels; siphons; removal of water by winding machinery; pumping plant; Cornish system; steam, compressed air and electrical pumping; bulk-heads.

**VENTILATION.**—Composition of air; gases met with underground; causes of the deterioration of air; dangers of dust; natural ventilation, its limitations; ventilation by furnaces; mechanical ventilators of various kinds; distribution of air through the workings; method of testing the purity of air; fire damp detection; methods of measuring and recording the volume of air passing through the workings.

**LIGHTING.**—Candles; lamps fed by tallow, and by animal, vegetable or mineral oils; safety lamps, gas and electric lamps; expense of lighting.

**DESCENT AND ASCENT.**—Steps and slides; ladders; winding machinery; safety appliances; man-engine.

**PRINCIPLES OF EMPLOYMENT.**—Day wages; contract work by weight or measure; contracts in which men have an interest in the values of the minerals extracted; administration, organization and business management; mine accounts.

**LEGISLATION.**—Special acts relating to mining properties and their operation.

**ACCIDENTS**—In hoisting, traction, roof falls, blasting, sudden ingress of waters, explosion, mine fires; rescuing of miners under various conditions; fire extinguishment, etc.

**ELEMENTS OF ORE DRESSING.**—A course in the principles of the mechanical movements underlying the operation of Ore Dressing Machinery. The course consists of a series of lectures on Shafting, Pulleys, Belting, Power, Transmission, and Mechanical Movements for obtaining uniform, intermittent, and variable motions; a short discussion of the more common fittings used in transmission of air and steam, and a brief description of the various machines and apparatus in use for the crushing, classification and concentration of the more important ores. Numerous problems are given the students to illustrate the principles discussed.

**LECTURES:** Senior year, first term. Five lectures per week.

**TEXT-BOOK:** Richards,' "Ore Dressing."

### **DYNAMO ELECTRIC MACHINERY.**

This course consists of instruction in dynamo machinery with the ultimate view of familiarizing the mining student with the dynamo and its operation. The student will be given the chance to design and erect small machines of the direct current type. The class work consists of lectures and recitations of the following work, Electrical Laws and Facts, Magnetic Laws and Facts, Armatures, Field Magnets, Operation of Armatures, Efficiency of Operation, Constant Potential Dynamos, Constant Current Dynamos, Motors, Series Motors, etc.

**TEXT-BOOK:** Sheldon's Dynamo Electric Machinery.

Senior year, Fall Term. Two times per week.

### **SHOP PRACTICE**

**FORGE WORK.**—This work begins with simple exercises in drawing, upsetting, bending, twisting, punching and welding. The work gradually becomes more difficult, such as making eye bolts, tongs, chains, etc. Tool-making is then taken up by making hammers, chisels, screwdrivers. This work is fully illustrated by means of drawings and lectures covering the properties of iron and steel. Extreme care is given to make the student familiar with the most useful grades of steel and correct shape and temper necessary for the best work in cutting iron, brass, stone, etc. The final work is the making of rock drills and testing same on grades of rock of different degrees of hardness.

Sophomore Class, throughout the day on Monday's.

**MECHANICAL DRAWING**—The student is here given practice in Geometrical Construction until he is familiar with the nature, care and use of drafting instruments. Then, after studying the principles of orthographic projection, intersection, and development, he is thoroughly drilled in free-hand lettering. The course is completed with one term of machine drawing. In this the student is required to make sketches, details, and assembly drawings of machines.

Freshman. Six hours throughout the week.

**MACHINE DRAWING**.—This course is a continuation of the work in Mechanical Drawing taken up in the Freshman year. This work treats of the more complicated parts of machinery, covering gears, power transmission, mechanism and machines used especially in Milling and Ore Dressing.

Required of all mining students.

**METAL WORK**—This course begins with chipping to a line, filing to a dimension and scraping to a surface plate. Machine operation is taken up next; the principles and uses of the drill press, lathe, etc., are taught by lectures followed by the actual use of the machine. After a reasonable time, skill is attained in operating the various machines through a course of graded exercises. Students will be given the opportunity to build complete machines designed by the instructor. The degree of accuracy thus acquired enables the student to use hand and eye in unison, and is a lasting benefit in teaching exactness in statement and measurement.

This course is required of Soph's in the Mining Course, one afternoon per week.

**WOOD TURNING**—Several Lathes are in the process of erection for use during the ensuing year. This course consists of use of the wood lathe in general which familiarizes the student with this machine. He is given exercises, beginning with a plane cylinder, including curves of various kinds and sizes, and concluding with face plate work in rings, balls, goblets, and vases. On all preliminary work students are required to use the tools in such a way as to make the use of sandpaper unnecessary.

Required of Freshman. One afternoon per week.



## COURSE--MINING ENGINEERING

### FRESHMAN YEAR.

	Time in periods per week.	
	First Term	Second Term
Lectures and Recitations:		
Algebra (1).....	5	
Trigonometry (2).....		5
General Chemistry.....	5	5
Elementary Mining.....	3	3
Elementary Mineralogy.....	3	3
Mechanical Drawing.....	3	2
English (1).....	5	5
Gen. Chemistry Lab. (Science 1).....	1	1
Mineralogy Lab. (See Bulletin.).....		
	<hr/> 25	<hr/> 25

### SOPHOMORE YEAR.

Lectures and Recitations:		
Analytical Geometry.....	5	
Calculus (3) and (4).....		5
French (1).....	5	5
Qualitative Analysis.....	5	
Quantitative Analysis.....		5
Mineralogy and Blowpipe Advanced.....	5	5
Plane Surveying.....		3
Lectures in Mine Surveying.....		2
Machine and Mill Design.....	2	
Forging, Metal Work and Wood Turning.....	3	
	<hr/> 25	<hr/> 25

### JUNIOR YEAR.

Lectures and Recitations:		
French.....	5	5
Physics.....	5	5
Mechanics of Engineering.....	3	
General Geology (3).....	5	5
Metallurgy.....	4	4
Assaying.....	2	
Mining.....	1	3
Mechanics of Materials.....		3
	<hr/> 25	<hr/> 25

## SENIOR YEAR.

### Lectures and Recitations:

Hydraulics.....	5	
Ore Dressing.....	5	5
Economic Geology and Geo. Survey.....	3	2
Mining.....	2	2
Metallurgy.....	5	5
Contracts and Specifications.....		4
Metallurgy Lab. and Problems.....	3	
Dynamo Mach. and Electrical Transmission.....	2	
Thesis.....		7
	25	25

## TABULAR VIEW OF STUDIES IN MINING ENGINEERING DEPARTMENT

### E. M. Course

#### FRESHMAN CLASS.

English (5) and (6).....5 periods per week throughout the year.  
Mining Engineering.....10 periods per week throughout the year  
Science (4).....5 periods per week throughout the year.  
Mathematics (5) and (6).....5 periods per week throughout the year.

#### SOPHOMORE CLASS.

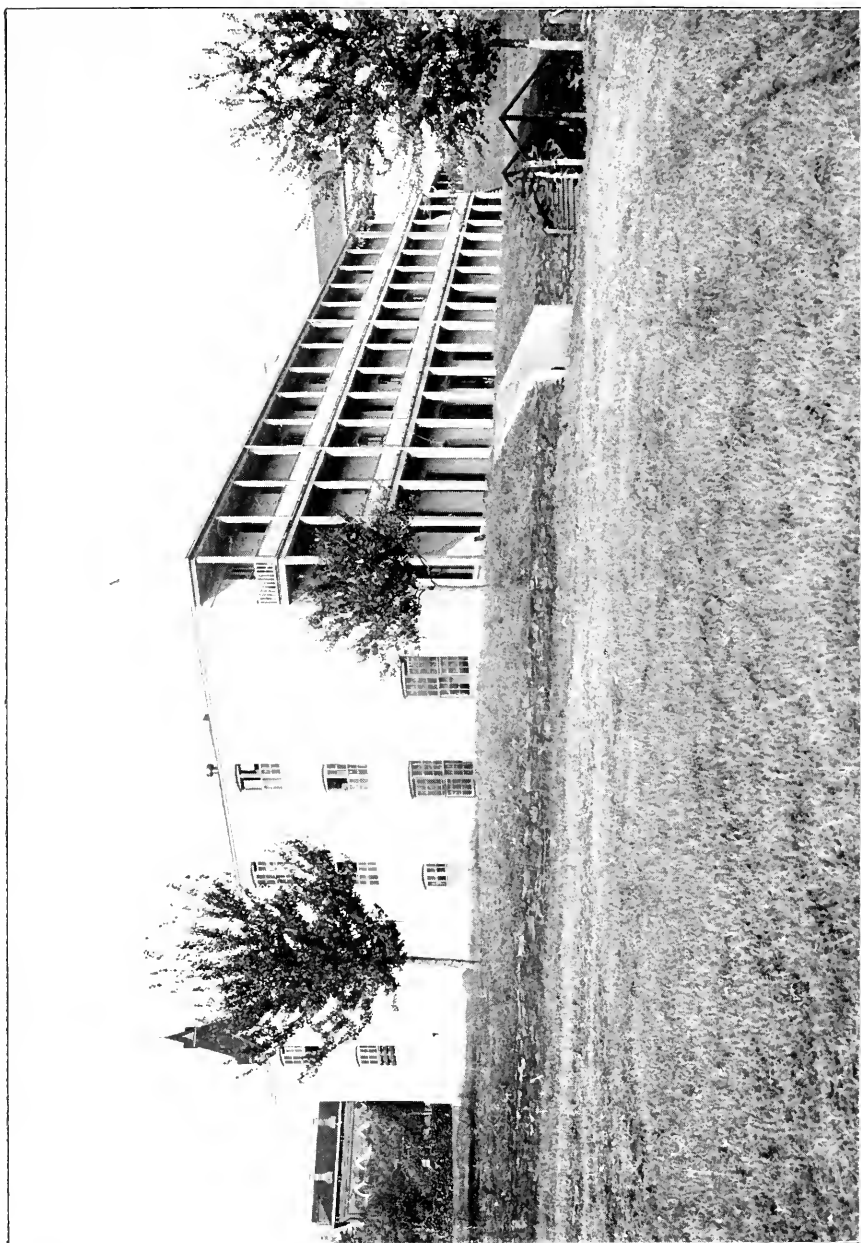
French (1).....5 periods per week throughout the year.  
Mining Engineering.....10 periods per week throughout the year.  
Science (5) and (6).....5 periods per week throughout the year.  
Mathematics (7) and (8).....5 periods per week throughout the year.

#### JUNIOR CLASS.

French (2).....5 periods per week throughout the year.  
Mining Engineering.....15 periods per week throughout the year.  
Mathematics (9) and (10).....5 periods per week throughout the year.

#### SENIOR CLASS.

Mining Engineering.....17 periods per week throughout the year.  
Mathematics (11) and (12).....5 periods per week throughout the year.  
Sub-Freshman "B" and "A" Classes identical with B.Agr. course.



NEW DORMITORY.



# MILITARY DEPARTMENT

## COMMANDANT OF CADETS

CAPTAIN JOHN M. SIGWORTH, 23rd U. S. INFANTRY.

Major .....	F. C. Cavender
First Lieutenant and Battalion Adjutant .....	Harry L. Baker
First Lieutenant and Battalion Quartermaster .....	A. W. Meredith
Battalion Sergeant Major .....	J. W. Woody
Battalion Quartermaster Sergeant .....	H. G. Wood

## BAND

Instructor, Chief Musician, U. S. Army .....	Edward Steiner
Principal Musician .....	T. M. Cavender
Drum Major .....	E. P. Craig
Sergeant .....	H. G. Wood
Private .....	L. B. Cumpton
Private .....	L. J. Keeling
Private .....	R. H. McCants
Private .....	L. B. Mathews
Private .....	H. W. Peyton
Private .....	W. B. Tompkins
Private .....	F. J. Todd
Private .....	R. J. Terrell
Private .....	W. H. Vickery

## SIGNAL DETACHMENT

First Lieutenant .....	C. Ray
Sergeant Major .....	J. W. Woody
Color Sergeant .....	R. W. Wallace
Color Sergeant .....	J. P. McGee
Drum Major .....	F. P. Craig

## COMPANIES

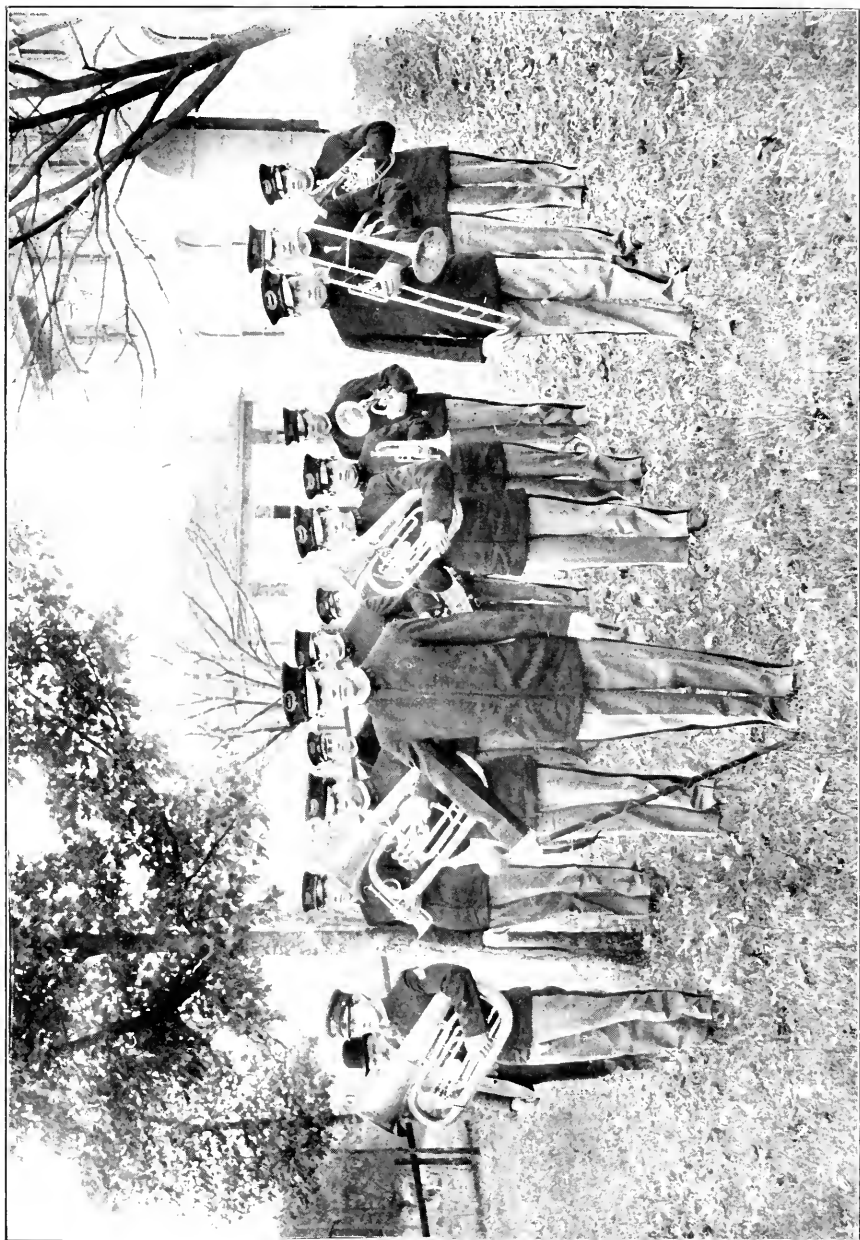
COMPANY "A"	RANK	COMPANY "B"
Vandiviere E. C. ....	Captain .....	H. E. Nelson
Ellison J. ....	First Lieutenant .....	G. L. Bynum
Neal C. ....	2nd Lieutenant .....	R. H. Kent
Barnes B. F. ....	1st Lieutenant .....	W. S. Mathews
Fraser D. A. ....	Sergeant .....	J. G. Sargent

## COMPANY "A"

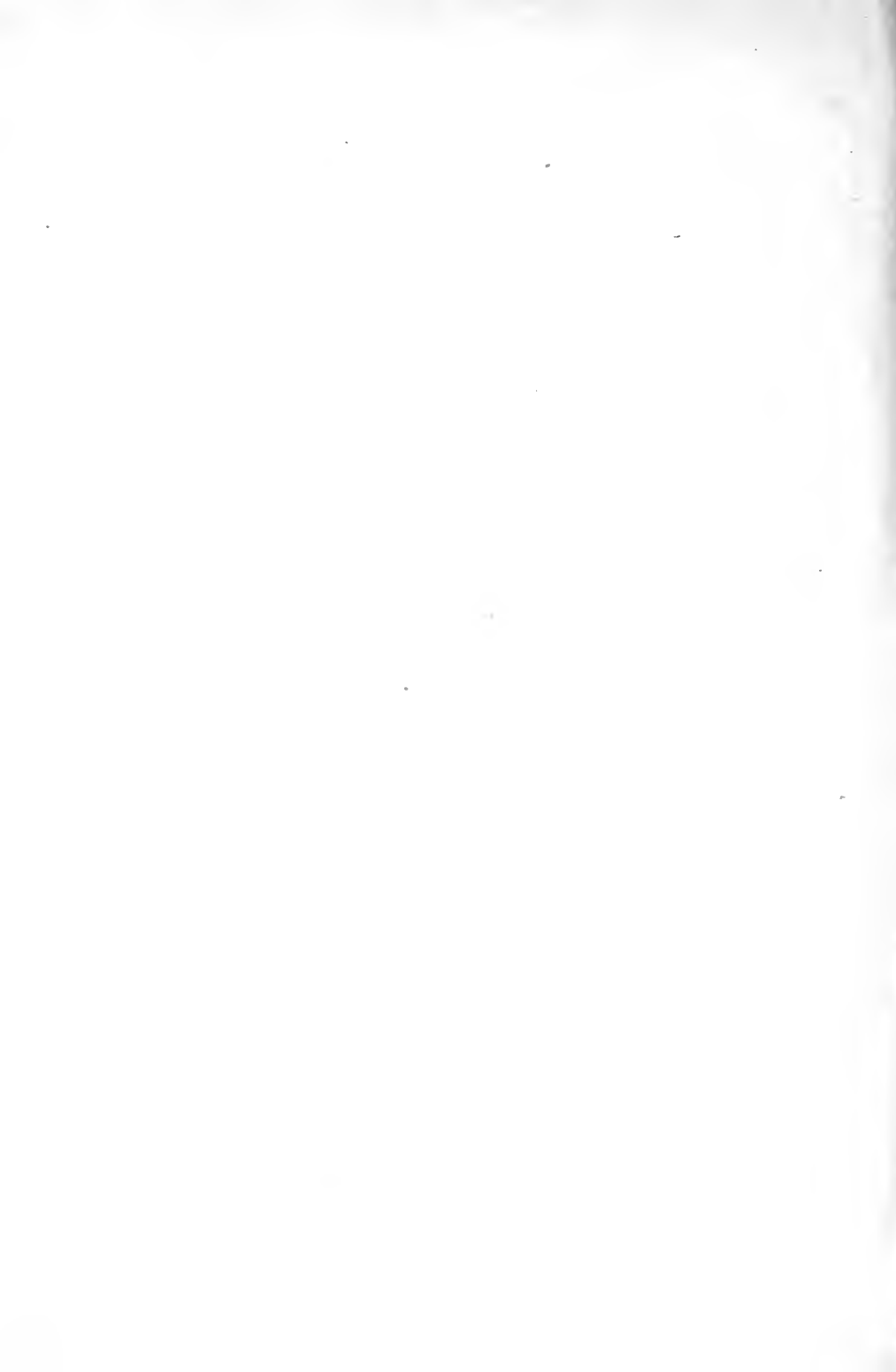
## RANK

## COMPANY "B"

Pendley C.	Sergeant	J. A. Gibbs
McDaniel W. C.	Sergeant	A. A. Rogers
Harris R. W.	Sergeant	T. E. Myers
Smith L. W.	Corporal	E. W. Smith
Howard E. W.	Corporal	W. E. Brasington
Cantrell P. P.	Corporal	W. C. Gibson
Huie W. E.	Corporal	J. E. Orr
Archer H. E.	Musician	W. W. Thompson
DuPont C. M.	Musician	J. Daniels
Atkinson W. M.	Private	T. E. Abercrombie
Beard W. R.	Private	E. Blunt
Blassingame J. E.	Private	W. L. Boyd
Black, J. J.	Private	H. E. Bryant
Cook R. S.	Private	R. M. Clayton
Cox J. A. E.	Private	J. F. Chambers
Dean G. C.	Private	M. E. DeLay
Dennison E. P.	Private	H. Daniel
deGraffenried R. J.	Private	G. T. Gerken
Fitts F. L.	Private	A. B. Gooch
Fowler D. M.	Private	W. B. Horne
Garrison R. W.	Private	L. Higgins
Gowder H. C.	Private	J. J. Huff
Hawkins G. B.	Private	H. W. Hill
Higgins H. F.	Private	F. B. Huntley
Hosch P. A.	Private	W. G. Johnston
Hosch C. R.	Private	R. L. Kent
Huie H. G.	Private	V. B. McDaniel
Hawthorne D. D.	Private	J. E. Marsh
Ledbetter H. M.	Private	H. T. Meaders
Mason J. W.	Private	H. C. Mason
Martin H. J.	Private	R. C. Nicholson
McLeod R. F.	Private	E. Nicholson
McKee H. G.	Private	M. G. Nasworthy
Mitcham F. A.	Private	N. A. Nix
Smith C. J.	Private	J. F. Niven
Smith E. W.	Private	C. H. Palmer
Smith L. C.	Private	R. L. Rogers
Tarver C. R.	Private	C. L. Rogers
Wallace F. E.	Private	S. T. Russell
Whitehead J. F.	Private	J. Smith
Wright H. E.	Private	J. L. Sheldon
	Private	C. B. Sanders
	Private	G. Ware
	Private	J. C. Wilcox



BAND.





## ARTILLERY DETACHMENT

First Lieutenant.....	H. E. Dorminy
Sergeant.....	B. L. Hancock
Sergeant.....	F. E. Miller
Corporal.....	H. G. Mitchell
Corporal.....	G. Peyton
Private.....	J. G. Bacon
Private.....	R. E. Baker
Private.....	P. Brooksher
Private.....	C. C. Hawkins
Private.....	T. W. Jones
Private.....	B. F. Malcom
Private.....	J. H. Malcom
Private.....	R. E. Minter
Private.....	R. E. McGill
Private.....	J. D. Pilcher
Private.....	W. W. Riden
Private.....	V. B. Riden
Private.....	J. I. Todd
Private.....	L. A. Vandiviere
Private.....	H. H. Young

The Military Department is at all times under the direct supervision of an officer of the United States Regular Army. The discipline of the institution is Military in its nature, and earnest and intelligent effort is constantly made to impress upon the student the importance of truthfulness, honesty, and never-ending attention to duty, those manly qualities which are the foundation of success in every walk of life. The Military Department works in conjunction with all other departments of the College for the highest development of the student intellectually, morally and physically. Bad habits and idleness are not tolerated, and conscientious, painstaking work is the order of every day.

### THE BAND

Under the leadership of Chief Musician Steiner, 5th U. S. Infantry, the College Band and Orchestra have reached a high state of efficiency. Its members are given a thorough course in music.

### THE SIGNAL DETACHMENT

The Signal Detachment is furnished with the latest appliances for Military Communication. Its members are taught all forms of communication, such as the use of the Heliograph, Telegraph, Visual Signaling with Flags, and the use of lanterns for night work, etc.

## **THE ARTILLERY DETACHMENT**

The Artillery Detachment is supplied with Two (2) 3.2 inch Field Guns, breech loading, the same as used by the regular army. The instruction in this branch is very thorough. The Cadets in the Artillery also receive the benefits of instruction in the Infantry.

## **BARRACKS**

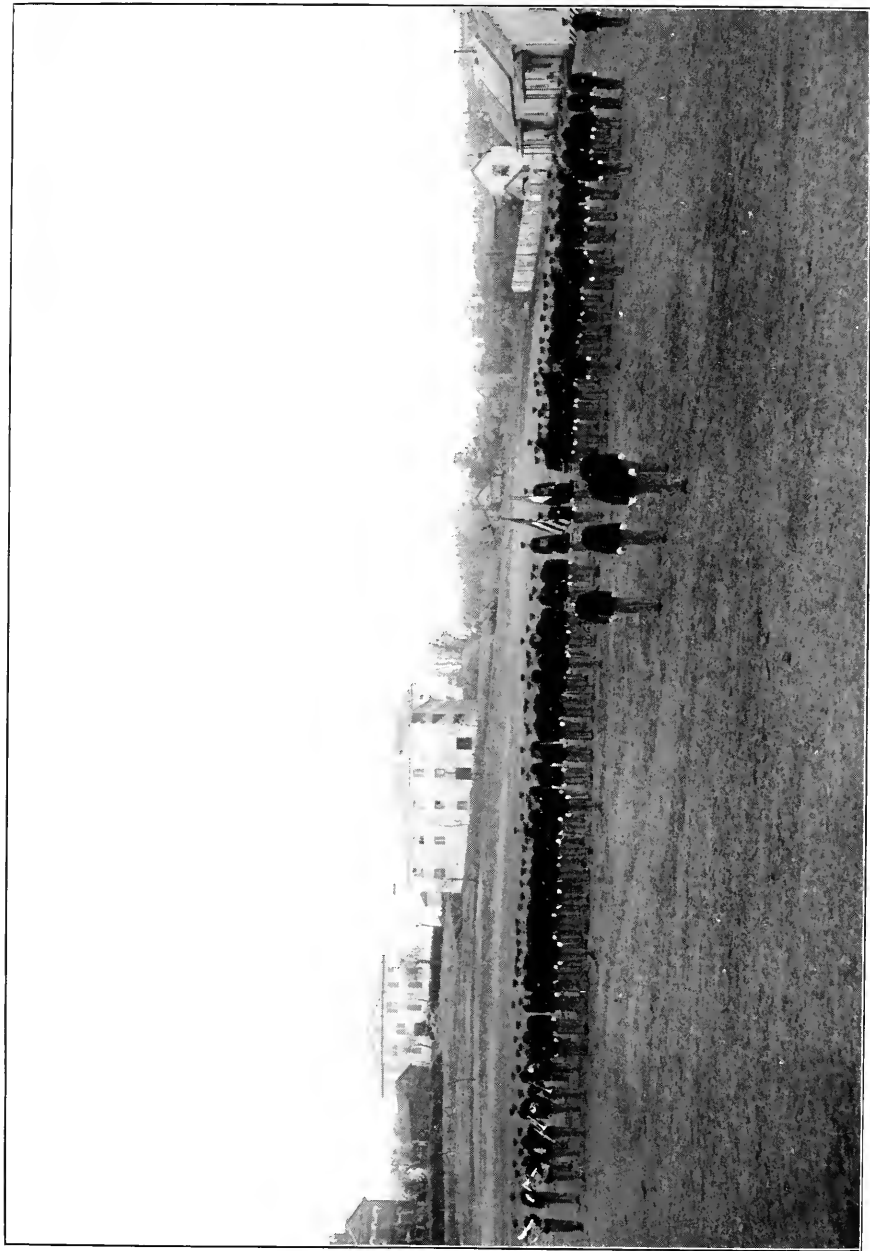
At a cost of \$20,000, the College has recently completed a new and commodious structure which is used for barracks for the cadets. This is a modern brick building furnished with electric lights, steam-heat, water-works and most excellent bathing facilities. It is furnished throughout with suitable furniture, and every effort is made to contribute to the comfort of the cadets. Two cadets are assigned to each room. Board, room, light and heat are furnished to a cadet for \$2.50 per week. Cadets are at all times under military discipline and control, and none are allowed to board or live outside of the barracks, except those living with parents, or very near relatives. Cadets outside of the barracks are required to conform to the same rules and regulations as those living inside.

The life of a student at this institution very closely resembles the life of a cadet at the U. S. Military Academy.

## **ADVANTAGES OF MILITARY EDUCATION AND TRAINING**

The benefits which the student derives from military training are moral, mental and physical. Military instruction and training develop the student morally by instilling into him principles of patriotism, courage, obedience to law and a high respect for lawful authority, while military discipline teaches the correct habits of living. Military instruction aids materially in the student's mental development by its constant demand for alertness in thought and action. The physical advantages derived from daily military exercises in the open air are improved health, well developed physique, correct carriage and neat and manly appearance. While the gymnasium and athletic sports aid in the development of a few, the military exercises give this benefit to all.

We are making good soldiers and we are also making good citizens. In the present age the discipline of an army differs very little from the discipline of a modern industrial organization, and every attribute of a good soldier is appreciated and rewarded as promptly in the business world as in the army.



BATTALION NO. 3.



## INSTRUCTION

The course of instruction, theoretical and practical, in the Military Department, is prescribed by the War Department, and is made as complete and as thorough as is consistent with the work to be performed in the Collegiate Departments. The same importance is attached to the work in the Military Department as to that in any other department.

Military duty is obligatory upon all male students over fifteen years of age who are not laboring under a physical disability. In case of physical disability, the fact must be certified to by the College Surgeon on duty at this institution. Every male student is liable to such military studies and modified military duties as he may be capable of performing.

Under the provisions of a General Order of the War Department Military Colleges are classified:

CLASS A.—Schools and colleges whose organization is essentially military, whose students are habitually in uniform, in which military discipline is constantly maintained, and one of whose leading objects is the development of the student by means of military drill, and by regulating his daily conduct according to the principles of military discipline.

CLASS B.—State land grant or agricultural colleges established under the provisions of the act of Congress of July 2, 1862, and which are required by said act to include military tactics in their curriculum.

CLASS BA.—Any college of Class B which attains the state of efficiency required for schools or colleges of Class A shall be classed as BA.

This College has already been classified as BA by the War Department which indicates that the institution has attained the state of efficiency required. There is no other college in the state of Georgia with classification BA, and but three others in the entire United States.

## UNIFORMS

The uniforms have been selected with a view to making it as inexpensive for the cadet as possible, and at the same time neat and durable. All uniforms are made to order. Arrangements have been made by which uniforms and equipments are purchased, by contract, and furnished to the cadet at cost. All uniforms must be inspected as to fit and quality and accepted by the Commandant of Cadets.

Cadets will wear the uniform at all times during the school term. A deposit to cover the cost of uniforms and equipment must be made at the time of matriculation.

The uniforms are as follows:

**FULL DRESS.**—Dark blue cap, army pattern; dark blue blouse, made of 18 oz. broad cloth; white duck trousers; white belt and gloves and black shoes.

**DRESS.**—Cap, blouse, gloves and shoes same as full dress uniform; cadet grey trousers, made of 22 oz. material.

**SERVICE.**—Cap, army pattern; blouse; breeches; all made of 18 oz. Olive Drab woolen material, canvas leggings, and tan shoes.

#### Uniform Expenses

Blue cap, blue blouse, grey trousers and black shoes.....	\$18.79
2 Pairs white duck trousers.....	2.50
Service Cap, blouse, trousers and tan shoes.....	18.24
1 Pair Leggings.....	.65
White belt and half dozen pairs white gloves.....	1.75
Half dozen standing collars.....	.75
<hr/>	
Total cost of clothing for one year.....	\$42.68

The dress uniform can easily be made to last for two years, and with very good care the service uniform will also last for two years.

To the above should be added the cost of an annual encampment lasting about one week; the cost for this feature will probably not exceed \$5.00.

Graduates of the North Georgia Agricultural College are eligible for appointment as Second Lieutenants of Infantry, Cavalry and Artillery in the U. S. Army, upon appointment and after satisfactory examination. The salary of a Second Lieutenant is \$1700.00 per year, with a ten per cent. increase for each five years service.

Graduates are also eligible for appointment as lieutenants of Philippine Constabulary, without examination, (except physical), the salary beginning with \$1100.00.

## Roll of Students, 1909-1910.

Those marked 7, 6, 5, 4, 3, 2, 1, belong respectively to Senior, Junior, Sophomore, Freshman, Preparatory classes 1, 2, and 3.

### SUMMARY

Total enrollment.....	214
State represented.....	7
Counties of Georgia represented.....	49
Farmer's children.....	76
Merchant's children.....	29
Lawyer's children.....	8
Doctor's children.....	19
Teacher's children.....	8
All others.....	67
Those living in country.....	81
Those living in town.....	80
Those living in city.....	46
Total number of male students.....	183
Total number of female students.....	31

#### Number of Students from Georgia Counties:

Ben Hill.....	3	Franklin.....	2	Morgan.....	9
Bibb.....	2	Fulton.....	19	Murray.....	1
Burke.....	1	Green.....	1	Oglethorpe.....	1
Carroll.....	1	Gwinnett.....	1	Pickens.....	2
Chattooga.....	1	Habersham.....	2	Pulaski.....	3
Cherokee.....	4	Hall.....	8	Rabun.....	3
Clayton.....	4	Hart.....	2	Richmond.....	1
Dawson.....	7	Heard.....	2	Telfair.....	2
DeKalb.....	4	Henry.....	2	Terrell.....	1
Dougherty.....	6	Jackson.....	2	Thomas.....	1
Effingham.....	1	Jenkins.....	3	Tift.....	1
Emanuel.....	1	Liberty.....	2	Union.....	2
Fannin.....	3	Lumpkin.....	48	Walton.....	1
Fayette.....	1	Madison.....	4	White.....	4
Floyd.....	11	Meriwether.....	2	Whitfield.....	1
Forsyth.....	32	Mitchell.....	1	Wilcox.....	1
				Worth.....	2

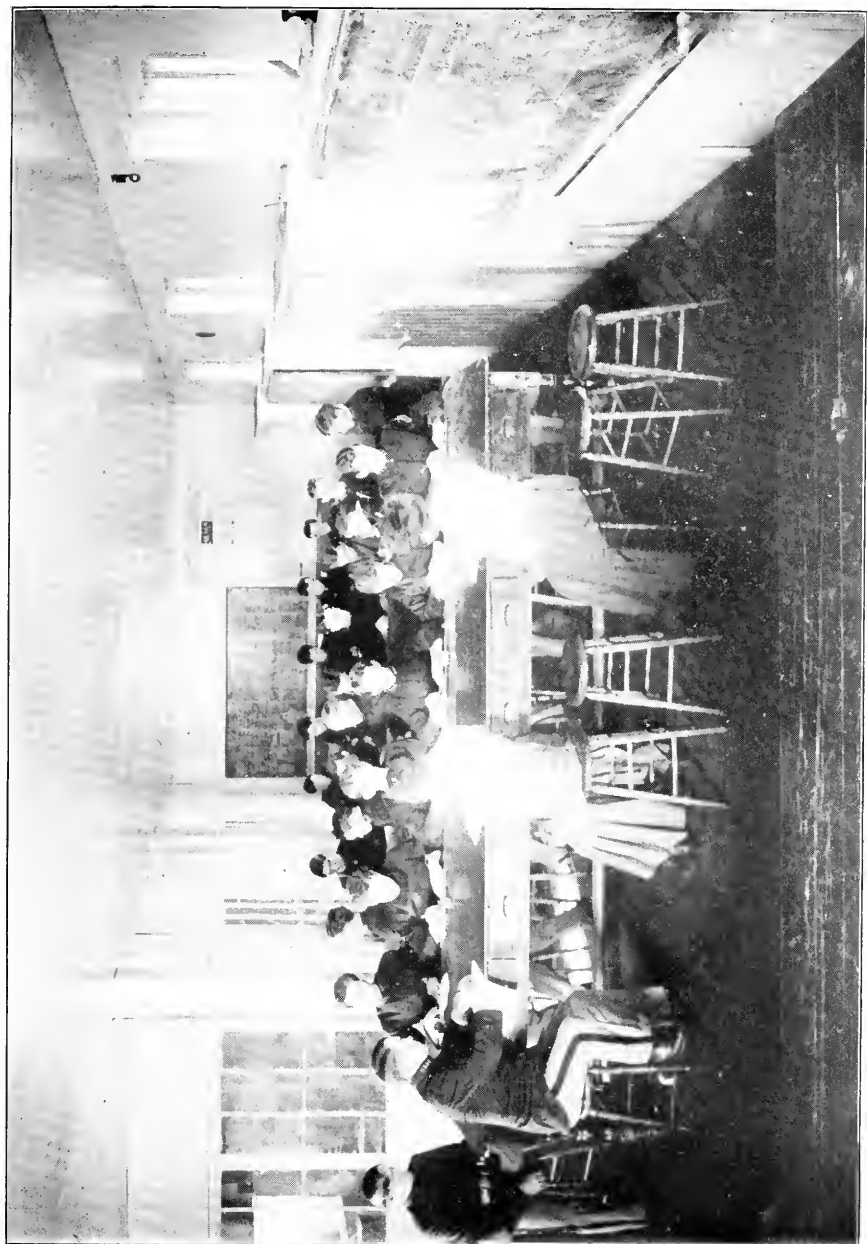
Abercrombie Mae, 4.....	Union.....	Ga. Farmer.....	Country
Abercrombie, T. E., 2.....	Lumpkin.....	Ga. Farmer.....	Country
Anderson Birdie, 5.....	Lumpkin.....	Ga. Merchant.....	Town
Archer, H. E., Jr., 1.....	Effingham.....	Ga. Doctor.....	Town
Ash, B. L., 2.....	White.....	Ga. Farmer.....	Country
Ash, H. M., 2.....	White.....	Ga. Farmer.....	Country

Atkinson, W. M., 1	Meriwether	Ga.	State Official	Country
Bacon, J. G., 3	Oglethorpe	Ga.	Farmer	Country
Baker, H. L., 6	Fulton	Ga.	City Official	City
Baker, R. E., 4	Lumpkin	Ga.	Lawyer	Town
Barnes, B. F., 5	Meriwether	Ga.	Farmer	Country
Beard, W. R., 3	Cherokee	Ga.	Farmer	Country
Best, W. H., 2	Floyd	Ga.	Clerk	City
Black, J. J., 1	Floyd	Ga.	County Official	City
Black, L. W., 1	Habersham	Ga.	Liveryman	Town
Blassingame, J. E., 1	Murray	Ga.	Farmer	Town
Blount, R. E., 2	Fulton	Ga.	City Official	City
Boyd, E. H., 1	Lumpkin	Ga.	Teacher	Town
Boyd, W. L., 4	Lumpkin	Ga.	Teacher	Town
Brandon, J. C., 1	Fulton	Ga.	Undertaker	City
Brasington, W. E., 4	Anson	N. C.	Contractor	City
Brooks, T. M., 1	Fulton	Ga.	Drummer	City
Brooksher, Blanche, 4	Lumpkin	Ga.	Merchant	Town
Brooksher, P. F., 4	Lumpkin	Ga.	Merchant	Town
Bryant, E. G., 1	Hall	Ga.	Farmer	Country
Byfield, C. K., 2	Fulton	Ga.	Merchant	City
Bynum, G. L., 6	Rabun	Ga.	Farmer	Country
Cameron, J. L., 2	Fulton	Ga.	Insurance	City
Camp, Pauline, 4	Carroll	Ga.	Farmer	Country
Cantrell, P. L., 4	White	Ga.	Doctor	Town
Castleberry, Wynne, 2	Lumpkin	Ga.	Farmer	Town
Cavender, Nellie, 6	Lumpkin	Ga.	Doctor	Town
Cavender, T. M., 7	Lumpkin	Ga.	Doctor	Town
Chambers, J. F., 1	Fulton	Ga.	Preacher	City
Christian, T. F., 3	Lumpkin	Ga.	Farmer	Town
Clayton, R. M., 2	Fulton	Ga.	City Officer	City
Cleveland, C. J., 6	Hart	Ga.	Preacher	Country
Cleveland, F. W., 1	Hart	Ga.	Preacher	Country
Cook, H. Y., 5	Heard	Ga.	Doctor	Country
Cook, R. S., 2	Heard	Ga.	Farmer	Country
Cox, J. A. E., 1	Clayton	Ga.	Farmer	Country
Craig, F. P., 5	Lumpkin	Ga.	Lawyer	Town
Craig, Mattie, 6	Lumpkin	Ga.	Lawyer	Town
Cumpton, L. B., 2	Lumpkin	Ga.	Farmer	Country
Daniel, Hal., 1	Fulton	Ga.	Contractor	City
Daniel, J. H., 5	Jenkins	Ga.	Farmer	Town
Darby, Arthur, 5	Cherokee	Ga.	Farmer	Town
Darby, Walter, 5	Cherokee	Ga.	Farmer	Town
Davidson, J. W., 7	Fulton	Ga.	Merchant	City
Dean, G. C., 2	Anderson	S. C.	Farmer	Country



de'Graffenried, R. J.,	4	Dougherty	Ga.	State Officer	City
DeLay, E. M.,	2	Floyd	Ga.	Doctor	City
Dennison, E. P.,	1	Dougherty	Ga.	Doctor	City
Dorminy, H. E.,	6	Ben Hill	Ga.	Farmer	Country
Duncan, Fannie,	5	Lumpkin	Ga.	Teacher	Town
DuPont, C. M.,	2	St. Johns	Fla.	Farmer	Town
Durden, G. A.,	1	Walton	Ga.	Merchant	Town
Duren, L. W.,	3	Thomas	Ga.	Doctor	Town
Elliott, D. W.,	2	Dawson	Ga.	Farmer	Country
Ellison, Julian,	7	Burke	Ga.	Lumberman	Town
England, Rev. W.R.,	2	Lumpkin	Ga.	Farmer	Country
Evans, Mae,	5	Lumpkin	Ga.	Contractor	Town
Fitts, F. L.,	1	Lumpkin	Ga.	Nurseryman	Country
Fitts, Fred.,	1	Lumpkin	Ga.	Nurseryman	Country
Foster, Chas.,	1	Lumpkin	Ga.	Farmer	Country
Fowler, D. M.,	2	Lumpkin	Ga.	Merchant	Country
Fraser, D. A.,	5	Liberty	Ga.	County Officer	Town
Fry, Marian,	5	Lumpkin	Ga.	Mining Engineer	Town
Gaillard, Emily,	4	Lumpkin	Ga.	Teacher	Town
Garrison, R. W.,	2	Anderson	S. C.	Merchant	Country
Gerken, G. T.,	2	Jefferson	Ky.	Merchant	City
Gibbs, J. A.,	5	Morgan	Ga.	Farmer	Country
Gibson, W. C.,	4	Bibb	Ga.	Farmer	City
Gillespie, W. P.,	2	Hall	Ga.	Farmer	Country
Glenn, Lillian,	7	Lumpkin	Ga.	Teacher	Town
Glenn Louise,	7	Lumpkin	Ga.	Teacher	Town
Gooch, A. B.,	2	Union	Ga.	Farmer	Country
Gowder, H. C.,	1	Hall	Ga.	Merchant	Town
Grizzle, C. H.,	2	Lumpkin	Ga.	Farmer	Country
Hancock, B. L.,	5	Clayton	Ga.	Farmer	Town
Harbour, T. P.,	4	Floyd	Ga.	Merchant	Town
Harris, R. W.,	5	Whitfield	Ga.	Doctor	City
Hathorn, D. D.,	2	Fulton	Ga.	R. R. Engineer	City
Hawkins, C. C.,	1	Hall	Ga.	Merchant	Town
Hawkins, G. B.,	4	Henry	Ga.	Gov. Officer	Town
Head, Myrtie,	5	Lumpkin	Ga.	Farmer	Country
Head, Nellie,	6	Lumpkin	Ga.	Doctor	Town
Higgins, H. F.,	3	Lumpkin	Ga.	Preacher	Country
Higgins, L. C.,	1	Lumpkin	Ga.	Preacher	Country
Hill, A. W.,	4	Chattooga	Ga.	Merchant	Town
Hollingsworth, J. A.,	2	Tift	Ga.	Merchant	City
Horne, W. B.,	2	Anson	N. C.	Farmer	Country

Hosch, C. R., 1	Jackson	Ga.	Farmer	Town
Hosch, P. A., 2	Jackson	Ga.	Farmer	Town
Howard, E. W., 4	Dawson	Ga.	Farmer	Country
Hudlow, Emma, 5	Lumpkin	Ga.	Seamstress	Town
Huff, J. G., 5	Lumpkin	Ga.	Lawyer	Town
Hughes, Willette, 1	Madison	Ga.	Teacher	Country
Huie, H. G., 4	Clayton	Ga.	Farmer	Town
Huie, W. E., 5	Clayton	Ga.	Farmer	Country
Huntley, F. B., 1	Anson	N. C.	Stock Dealer	Town
Hutcheson, Elizabeth, 2	Lumpkin	Ga.	Farmer	Country
Hutchison, Lou, 2	Lumpkin	Ga.	Farmer	Country
Jackson, Flossie, 4	Lumpkin	Ga.	Merchant	Town
Johnston, W. G., 4	Floyd	Ga.	Merchant	City
Joines, J. J. Jr., 2	Fulton	Ga.	Bookkeeper	City
Jones, T. W., 1	Fulton	Ga.	Engineer	City
Keeling, L. J., 3	Pulaski	Ga.	Merchant	Town
Kellam, A. R., 5	Fulton	Ga.	City Officer	City
Kent, R. H., 7	Jenkins	Ga.	Farmer	Country
Kent, R. L., 4	Jenkins	Ga.	Farmer	Country
Ledbetter, H. M., 4	Muskogee	Okla.	Teacher	Town
Malcom, B. F., 2	Morgan	Ga.	Farmer	Country
Malcom, J. H., 3	Morgan	Ga.	Farmer	Country
Marsh, J. E., 1	Anson	N. C.	Merchant	City
Martin, H. J., 2	DeKalb	Ga.	Millwright	Town
Mason, C. C., 3	Franklin	Ga.	Doctor	Town
Mason, J. W., 1	Franklin	Ga.	Doctor	Town
Mathews, L. B., 4	Pulaski	Ga.	Doctor	Town
Mathews, W. S., 6	Pulaski	Ga.	Doctor	Town
McCants, R. S., 2	Orangeburg	S. C.	Farmer	Country
McDaniel, V. B., 1	Dougherty	Ga.	Bookkeeper	City
McDaniel, W. C., 6	Dougherty	Ga.	Bookkeeper	City
McDaniels, W. M., 3	Fulton	Ga.	Drummer	City
McDonald, Rosa, 6	Lumpkin	Ga.	Mechanic	Country
McGee, Alice, 5	Lumpkin	Ga.	Merchant	Town
McGee, J. P., 6	Lumpkin	Ga.	Merchant	Town
McGill, R. E., 4	Madison	Ga.	Teacher	Country
McKee, H. G., 5	DeKalb	Ga.	Farmer	Country
McKee, Ora, 5	Lumpkin	Ga.	Merchant	Town
McLeod, R. F., 1	Wilcox	Ga.	Farmer	Country
McRae, S. B., 1	Telfair	Ga.	Gov. Officer	Town
Meaders, H. T., 4	Emanuel	Ga.	Vet. Surgeon	Town
Mercedith, A. W., 6	Anderson	S. C.	Farmer	Country



CLASS IN BOOKKEEPING.



Miller, F. E., 5	Liberty	Ga.	Merchant	Town
Miller, R. S., 1	Mitchell	Ga.	Farmer	Country
Minter, R. E., 4	Fayette	Ga.	Merchant	Town
Mitcham, F. A., 1	Henry	Ga.	Stock Dealer	Town
Mitchell, H. G., 4	DeKalb	Ga.	Lawyer	Town
Moore, M. N., 1	Fulton	Ga.	County Officer	City
Myers, T. E., 4	Ben Hill	Ga.	Contractor	City
Nasworthy, M. G., 1	Terrell	Ga.	Farmer	Town
Neal, Cecil, 7	Hall	Ga.	Doctor	City
Nelson, H. E., 6	Union	Ga.	Farmer	Country
Nicholson, Euber, 2	Rabun	Ga.	Farmer	Country
Nicholson, R. C., 2	Rabun	Ga.	Farmer	Country
Niven, J. F., 2	Anson	N. C.	Farmer	Country
Niven, Mary, 2	Anson	N. C.	Farmer	Country
Nix, N. K., 2	White	Ga.	Preacher	Country
Orr, J. E., 4	Dawson	Ga.	Farmer	Country
Palmer, C. H., 1	Gwinnett	Ga.	Farmer	Country
Park, H. L., 3	Bibb	Ga.	Capt. Steamboat	City
Payton, H. W., 3	Worth	Ga.	Lawyer	Town
Pendley, Chas., 5	Pickens	Ga.	Farmer	Country
Peyton, Garland, 3	Habersham	Ga.	Farmer	Town
Phillips, B. H., 7	Fannin	Ga.	Lumberman	Country
Pileher, J. D., 3	Richmond	Ga.	Cotton Factor	City
Quillian, Mary Lou, 2	Hall	Ga.	Farmer	Country
Ray, Clark, 7	Fannin	Ga.	Farmer	Country
Ray, Smith, 4	Fannin	Ga.	Farmer	Country
Reed, Milton, 4	Fulton	Ga.	Insurance	City
Rice, Pearl, 6	Lumpkin	Ga.	Machinist	Town
Riden, V. B., 2	Morgan	Ga.	Doctor	Town
Riden W. W., 2	Morgan	Ga.	Doctor	Town
Rogers, A. A., 5	Madison	Ga.	Farmer	Country
Rogers, C. L., 1	Ben Hill	Ga.	Farmer	City
Rogers, R. L., 2	Hall	Ga.	County Officer	Country
Russell, Ruth, 5	Lumpkin	Ga.	Seamstress	Town
Russell, S. T., 2	Oconee	S. C.	Farmer	Country
Sanders, C. B., 1	Green	Ga.	County Officer	Country
Sargent, H. T., 3	Lumpkin	Ga.	Mechanic	Town
Sargent, J. L., 3	Lumpkin	Ga.	Mechanic	Town
Sheldon, J. L., 1	Oconee	S. C.	Farmer	Country
Simpson, L. L., 4	DeKalb	Ga.	Farmer	Country
Smith, C. J., 1	Forsyth	Ga.	Farmer	Country
Smith, Ed. W., 4	Guilford	N. C.	Drummer	City
Smith, Earnest, W., 4	Forsyth	Ga.	Farmer	Country

Smith, J. T., 2	Hall	Ga.	Farmer	Country
Smith, L. W., 4	Dawson	Ga.	Mechanic	Country
Smith, L. C., 1	Dawson	Ga.	Mechanic	Country
Stanton, Mary, 5	Lumpkin	Ga.	Merchant	Town
Tarver, C. R., 3	Dougherty	Ga.	Farmer	City
Terrell, R. J., 4	Fulton	Ga.	City Officer	City
Thomas, May, 6	Lumpkin	Ga.	Merchant	Town
Thompson, W. W., 2	Fulton	Ga.	Doctor	City
Todd, F. M., 2	Floyd	Ga.	Merchant	City
Todd, J. L., 4	Floyd	Ga.	Merchant	City
Tompkins, W. B., 4	Davidson	Tenn.	Merchant	City
Vandiviere, E. C., 7	Dawson	Ga.	Lawyer	Town
Vandiviere, L. A., 4	Dawson	Ga.	Lawyer	Town
Vickery, W. H., 2	Floyd	Ga.	Drummer	City
Wallace, F. E., 1	Morgan	Ga.	Banker	Town
Wallace, J. P., 2	Morgan	Ga.	Banker	Town
Wallace, M. C., 2	Morgan	Ga.	Merchant	Town
Wallace, R. W., 6	Morgan	Ga.	Banker	Town
Waters, Stella, 3	Lumpkin	Ga.	Farmer	Country
Ware, Garnet, 2	Madison	Ga.	Farmer	Country
Watts, J. C., 4	Floyd	Ga.	Doctor	City
Weaver, Myrtle, 1	Lumpkin	Ga.	Farmer	Country
Wheeler, J. D., 4	Cherokee	Ga.	Lumberman	Town
Whitehead, J. F., 3	Dougherty	Ga.	Superintendent	City
Willcox, J. C., 1	Telfair	Ga.	Captain Steamboat	Town
Wood, H. G., 6	Pickens	Ga.	Druggist	Town
Woody, J. W., 5	Lumpkin	Ga.	Farmer	Country
Wright, E. E., 3	Floyd	Ga.	Farmer	Country
Wright, H. E., 3	Floyd	Ga.	Teacher	Town
Young, H. H., 4	Washington	Fla.	Naval Stores	Town

## Preparatory Department.

To meet the needs of those sections of the state that have no high schools or where the high school is imperfectly developed, and yet where the people desire to give their sons and daughters a good education, the North Georgia Agricultural College has provided a Preparatory Department offering a three years course of instruction in English, Mathematics, Latin, Science, History, Drawing, and Business, and leading up to the freshman class of fourteen unit colleges.

To enter the First Preparatory class it is necessary for the pupil to have satisfactorily completed the First Year (eighth grade) of the high school. Pupils should not apply who have not a practical knowledge of English Grammar, arithmetic, United States history, introductory Latin and some knowledge of literature.

### Course of Study

#### English

1. **ELEMENTARY ENGLISH COMPOSITION.**—The object of this course is to enable the student to express himself correctly, intelligently, and interestingly; to turn to account his powers of observation, reflection, and imagination, and employ the material offered by his own life, his home scenes and experiences, the daily panorama of nature, and the daily spectacle of human life on the farm, in the village, and in the city to increase his vocabulary; and to give some acquaintance with the masterpieces of literature.

It will include instruction in the technicalities of writing, compositions, reproduction, memorizing, reading, declamations, reviews.

**TEXT:** Sykes' "Elementary English Composition" (English Grammar Supplement).

Required for reading and study: Franklin's Autobiography, Merchant of Venice, Courtship of Miles Standish, Vicar of Wakefield, Washington Farewell Address and Webster's First Bunker Hill Oration.

First Preparatory Class; entire year. Five hours.

2. **ELEMENTARY RHETORIC AND COMPOSITION.**—Continuation and enlargement of work of the First Preparatory class; study of English

usage, enlargement of pupils' vocabulary; study of the word, sentence, paragraph, and minor forms of composition; frequent compositions, collecting and arranging material; style as illustrated by standard authors; study of prescribed literature; drills in punctuation; reviews, reading, declamations, memorizing.

TEXTS: Carpenter's "Elements of Rhetoric and Composition" and Painter's "Poets of the South."

Required for reading and study: "Julius Cæsar," Irving's "Sketch Book;" Macaulay's "Life of Johnson;" "The House of the Seven Gables;" "The Lady of the Lake."

Second Preparatory Class; entire year. Five hours.

3. ENGLISH COMPOSITION:—Exposition, Argumentation, Description, Narration and Elements of Prosody; review of minor forms of composition; long and short themes; careful study of selected literature; reading, memorizing, declamations, reviews.

TEXTS: Canby and others' "English Composition in Theory and Practice," and Matthews' "Introduction to American Literature."

Required for reading and study: "Macbeth," "Conciliation with America;" Milton's "Minor Poems;" "Silas Marner."

Third Preparatory Class; entire year. Five hours.

### Mathematics.

1. ELEMENTARY ALGEBRA.—Five hours.

TEXT: Young and Jackson.

First Preparatory Class, fall term.

2. PLANE GEOMETRY.—Five hours.

TEXT: Wentworth's.

First Preparatory Class, spring term.

3. ELEMENTARY ALGEBRA.—Completed. Five hours.

TEXT: Young and Jackson.

Second Preparatory Class, fall term.

4. PLANE GEOMETRY.—Completed. Five hours.

TEXT: Wentworth's

Second Preparatory Class, spring term.



5. HIGHER ALGEBRA.—Five hours.

TEXT: Wentworth's.

Third Preparatory Class, fall term.

6. (a).—Solid Geometry, completed.

(b).—Plane Trigonometry: Trigonometric functions, the right triangle, goniometry, the oblique triangle.

Third Preparatory Class, spring term. Five hours.

### Science.

1. PHYSICAL GEOGRAPHY.—This course will include the study of at least one text-book, together with an approved laboratory and field course of at least thirty-five exercises performed by the student.

TEXT: Tarr's "New Physical Geography."

First Preparatory Class, entire year. Five hours.

2. ELEMENTARY PHYSICS.—Recitation work, three hours per week; laboratory work, four hours per week. Practical application will be made and emphasized of the principles of mechanics; properties of matter, heat, sound, light, electricity, and magnetism.

TEXT: Gage's "Introduction to Physical Science."

Second Preparatory Class, entire year.

3. BIOLOGY.—This course includes Animal, Human, and Plant Biology together with frequent experiments and classifications. Practical experiments in laboratory, in field and classroom. Results will be kept in tabulated form in note-book. The course will be accompanied with lectures on different topics.

TEXT: Bailly and Coleman's "First Course in Biology."

Third Preparatory Class, entire year. Five hours.

### Latin

COURSE 1.—Entrance Requirements: Moulton's Introductory Latin or its equivalent.

First four books of "Cæsar's Gallic War" (Towle and Jenks).

Latin Composition (Baker and Inglis).

Latin Grammar (Allen and Greenough).

Five hours per week. Required of First Preparatory Class.

COURSE 2.—Six Orations of Cicero (Tunstall).

Latin Composition (Baker and Inglis).

Latin Grammar continued.

Five hours per week. Required of Second Preparatory Class.

COURSE 3.—First six books of Vergil's "Aeneid" (Knapp).

Latin Composition and Grammar continued.

Five hours per week. Required of Third Preparatory Class

### History

1. THE ANCIENT WORLD.—From the earliest times to 800 A. D. The continuity of historical development and the value of the past in explaining the present constitute the central and controlling motifs of the course. Occidental life and ideals critically contrasted with that of the Orient. Likewise the Roman genius with that of the Greek. More than the usual time devoted to the rise and spread of Christianity and its contributions to the World's Civilization.

NOTE BOOK System, using Heath's "Outline of Ancient History."

TEXT-BOOK: West's "Ancient World." Four hours a week, fall and spring terms. First Preparatory Class, three hours.

2. HISTORY OF ENGLAND.—Early political institutions fully and clearly defined. Importance of race elements particularly detailed. Considerable emphasis upon the Expansion and Foreign Policy of England. About twenty-five per cent. of the time will be given to the Nineteenth Century.

NOTE-BOOK System, using Heath's "Outline of English History."

TEXT-BOOK: Andrew's "History of England." Four hours a week, fall and spring terms. Second Preparatory Class, three hours.

3. HISTORY OF THE UNITED STATES.—History and Civics in this course form one study. Government will be regarded as the structural aspect of inherited and acquired racial experience. Major stress upon the development of social and industrial arrangements.

Note-book System, using Heath's "Outline of American History."

TEXT-BOOK: Adams and Trent's "History of the United States."

Third Preparatory Class, entire year. Four hours.

### Business

1. SPELLING AND PENMANSHIP.—Both will be recited the same period. To pass in this class the student will be required to spell common words correctly, to use capitals properly, and to understand diacritics, and to write a neat business hand.

Required of the First Preparatory Class, first and second terms. Five hours.



PHI MU LITERARY SOCIETY HALL.



2. PENMANSHIP, WORD ANALYSIS, AND DRILL IN GRAMMAR.—This class will continue the penmanship of the First Class, and in addition will be given drills in Word Analysis and English Grammar. To pass in this class the student will be required to be able to analyze common words; to analyze, diagram, and parse common sentences; and to write a neat rapid business hand. The work will vary at intervals but will occupy only one period a day.

Required of the Second Preparatory Class, first term. Five hours.

3. COMMERCIAL ARITHMETIC.—Special attention will be given to various short cuts. Close drill in rapid Addition and Multiplication. The subjects of Percentage and Proportion will be given in their various phases. There will be special attention given to the Metric System.

Required of the Second Preparatory Class, second term. Five hours.

4. BOOKKEEPING AND TYPEWRITING.—To pass in this class the student will be required to write 15 words a minute for three minutes on the typewriter, by the touch system; and to become familiar with the Journal, Cash Book, Bill Book, and the Ledger, knowing how to close ledger accounts, and to make Balance Sheets.

Required of the Third Preparatory Class, first and second terms. Five hours.

## SCHEDULE OF STUDY FOR

### PREPARATORY CLASSES

Required for all A.B. and B.S. and B.Ph. courses:

	1st,	2nd, and	3rd prep.
English .....	(1)	(2)	(3) -----5 hrs. per week.
Mathematics.....	(1&2)	(3&4)	(5&6) -----5 hrs. per week.
Science.....	(1)	(2)	(3) -----5 hrs. per week.
Latin .....	(1)	(2)	(3) -----5 hrs. per week.
History .....	(1)	(2)	(3) hrs. per week. Prep., 4 hrs.

For all B.B.S., M.E., and A.Gr. Courses substitute Business (1, 2, 3 and 4), respectively for Latin (1, 2 and 3).

Name	Present Address	Occupation	Year in College	Residence When in College	Grad	Remarks
Bates, M. G.	Atlanta, Texas.	Teacher	1875-1878	Murray Co.	1878	Was Supt. of Schools at Ft. Worth.
Coffee, R. N.	Texas.	Lawyer	1875-1878	Gordon Co.	1878	
Collier, G. W.	Atlanta, Ga.	Merchant	1875-1878	Fulton Co.	1878	
Crusselle, W. F.	Atlanta, Ga.	Journalist	1875-1878	Fulton Co.	1878	Prof. in N. G. A. C. several years
Earl, E. B. *		Teacher	1875-1878	Floyd Co.	1878	
Gray, J. R.	Atlanta, Ga.	Journalist	1876-1878	Bartow Co	1878	Editor of Atlanta Journal.
Harris, W. D.	Fort Worth, Tex.	Lawyer	1875-1878	Murray Co.	1878	Judge.
Lewis, Miss Willie* (Mrs. Littlefield)		Lawyer	1873-1878	Lumpkin Co	1878	
Starr, O. N.	Calhoun, Ga.	Lawyer	1875-1878	Gordon Co.	1878	State Senator.
Starr, Trammell*	Calhoun, Ga.	Teacher & Merchant	1875-1878	Gordon Co.	1878	Senator.
Aberathy J. H. *		Lawyer	1878-1879		1879	
Henley, J. W.	Atlanta, Ga.	Lawyer	1875-1879	Murray Co.	1879	Assistant U. S. Dist. Attorney fromer C. S. C., Pickens Co.
Chapman, Miss Lizzie	Cuba, Ga	Teacher.	1874-1879	Lumpkin Co.	1879	
Gaillard, J. J.	Macon, Ga.	Civil Eng.	1873-1880	Spalding Co.	1880	Chief Engineer G. S. & F. R. R & M. & A. Interurban Line.
Lewis, Mary R. (Mrs. W. F. Crusselle)	Atlanta, Ga.	Lawyer	1873-1878	Lumpkin Co.	1880	
Wilson, H. E.	Savannah, Ga.	Lawyer	1873-1880	Effingham Co.	1880	Prof. in N. G. A. C. and several high schools.
Wilson, W. S.	Savannah, Ga.	Physician	1877-1880	Effingham Co.	1880	{ Won Stevens' Medal in Mil-
Watt, C. B.	Vienna, Ga.	Farmer	1877-1881	Forest, Ala.	1881	{ Stevens' Medal for best record
Power, C. G.	Vienna, Ga.	Teacher	1878-1881	Cobb Co.	1881	{ Supt. of Public Schools.
Davis, Sallie G. *			1873-1881	Lumpkin Co.	1881	
McDaniel, Mrs. Fannie			1880-1881	Carroll Co.	1881	
Hutchins, Mrs. Lizzie	Early, S. C.		1873-1881	Lumpkin Co.	1881	
Henderson, Calvin	Ark.	Teacher	1880-1882	Paulding Co.	1882	

Name	Present Address	Occupation	Year in College	Residence When in College	Grad.	Remarks
Stow, M. N.	Jesup, Ga.	Physician	1876-1882	Lumpkin Co.	1882	Former Mayor of Dawsonville, Ga.
Peebles, L. C.	Dawson, Ga.		1880-1882	Terrell Co.	1882	
Mann, W. E.	Ringgold, Ga.	Lawyer	1880-1882	Floyd Co.	1882	State Senator.
Napier, G. M.	Monroe, Ga.	Lawyer	1880-1882	Walker Co.	1882	Journalist; Judge Advocate General and Orator.
Chapman, F. T.*			1874-1883	Lumpkin Co.	1883	
Fricks, N. A.*			1880-1883	Franklin Co.	1883	Once Member House of Representatives.
Jones, W. F.	Elberton, Ga.	Teacher	1881-1883	Troup Co.	1883	Lt. Col. in Georgia Militia.
Key, W. H.	Alabama.	Lawyer	1880-1883	Banks Co.	1883	
Stanton, M. W.	El Paso, Texas.	Lawyer	1881-1883	Gordon Co.	1883	
Wills, G. T.*		Clerk	1880-1883	Jackson Co.	1883	
Boyd, J. W.	Dahlonega, Ga.	Teacher	1880-1884	Dahlonega, Ga.	1884	Prof. Young Harris. Now Prof. of Math. at N. G. A. C. State Senator.
Coleman, E. W.	Canton, Ga.	Lawyer	1880-1884	Talking Rock, Ga.	1884	
Coleman, W. S.	Cedartown, Ga.	Journalist	1880-1884	Talking Rock, Ga.	1884	Ed. Cedartown Standard and Pres. Ga. Weekly Press Asso.
Martin, W. C.	Dalton, Ga.	Lawyer	1881-1884	Spring Place, Ga.	1884	State Senator.
Wardlaw, J. A.	Chattanooga, Tenn.	Merchant	1882-1884	Chattanooga, Tenn.	1884	
Wills, A. J.*	Rome, Ga.	Dentist	1880-1884	Jefferson Co.	1884	
Wills, Miss Massie* (Mrs. John Ross)			1880-1884	Jefferson Co.	1884	
Cavender, J. M.	Chattanooga, Tenn.		1883-1885	Ringgold, Ga.	1885	
Crusselle, G. W.			1884-1885	Atlanta, Ga.	1885	
Lively, M. L.	Atlanta, Ga.	Merchant	1882-1885	Norcross, Ga.	1885	
Cartledge, S. J.	Anderson, S. C.	Preacher	1884-1885	Bold Springs, Ga.		
Canning, N. G.*		Lawyer	1883-1886	Flowery Branch, Ga.		
Cato, E. T.		Teacher	1883-1886	Glenville, Ala.	1886	Pastor Presbyterian Church, Anderson, South Carolina.
Cato, J. C.			1883-1886	Glenville, Ala.	1886	

Name	Present Address	Occupation	Year in College	Residence When in College	Grad.	Remarks
Fisher, L. O.	Ozark, Ala.	Lawyer	1881-1886	Alpharetta, Ga.	1886	
Standard, C. T.		Farmer	1882-1886	Marietta, Ga.	1886	R. R. Employee. Westminster, S. C.
Stribbling, J. P.			1883-1886	Richland, S. C.	1886	
Craig, D. S.	Atlanta, Ga.	Lawyer	1886-1887	Walhalla, S. C.	1887	
Nesbit, K. A.		Law. & Journ't	1882-1887	Fairburn, Ga.	1887	
Phillips, E. L.		Farmer	1884-1887	Griffin, Ga.	1887	
Phillips, J. H.	Kirkwood, Ga.	Physician	1884-1887	Griffin, Ga.	1887	
Fletcher, H. M.		Lawyer.	1884-1888	Jackson, Ga.	1888	
Morris, J. H.*		Teacher	1884-1888	Griffin, Ga.	1888	
Sheldon, W. A.	Liberty, S. C.	Physician	1886-1888	Westminster, S. C.	1888	
Swanson, W. T.		Teacher	-1888	Blairsville, Ga.	1888	
Woodward, J. C.		Teacher	1884-1888	Jackson, Ga.	1888	Pres. Ga. Military Acad., Lt. Col. Gov. staff. Degree A. M.
Mincy, W. H.	Woodstock, Ga.	Teacher	1884-1889	Two Run, Ga.	1889	
Shelton, W. H.		Broker	1885-1889	Jay, Ga.	1889	
						Lt. U. S. V. Spanish-American War.
Stribbling, T. M.	Bold Springs, Tex.	Preacher	1886-1889	Richland, S. C.	1889	
Almand, E. H.		Merchant	1886-1889	Conyers, Ga.	1889	Maj. U. S. A. V. Spanish-Am. War.
Chamblee, W. R.*						Lt. U. S. A. V. Spanish-Am. War
Vickery, E. B.	Dahlonega, Ga.	Lawyer	1888-1890	Pendergrass, Ga.	1890	
Lawton, Mrs. E. P., nee		Teacher	1887-1890	Hartwell, Ga.	1890	Prof. in N. G. A. C. since 1890.
Miss M. L. Basinger			1887-1891	Dahlonega, Ga.	1891	Wife Capt. E. P. Lawton, U. S. A.
Gilbert, T. H.		Preacher	1886-1891	Pendergrass, Ga.	1891	Minister, Tex., Con. M. E. Church.
Almand, J. M.	Decatur, Ga.	Merchant	1887-1891	Conyers, Ga.	1891	
Carmichael, H. B.*			1887-1891	Jackson, Ga.	1891	
Clark, J. B.		Physician	1887-1891	Eastman, Ga.	1891	
Head, M. H.	Dahlonega, Ga.	Physician	1887-1891	Dahlonega, Ga.	1891	College Surgeon, N. G. A. College.



Name	Present Address	Occupation	Year in College	Residence When in College	Grad.	Remarks
Harris, B. C.	Savannah, Ga.	Accountant	1887-1891	Dahlonega, Ga.	1891	
McMurry, R. A.	West End, Ga.	Dairyman	1887-1891	Gainesville, Ga.	1881	
Meaders, A. W.	Watkinsville, Ga.	Farmer	1887-1891	Gainesville, Ga.	1891	
Phillips, T. J.	Griffin, Ga.	Physician	1887-1891	Griffin, Ga.	1891	
Dendy, W. E.		Teacher	1887-1891	Richland, Ga.	1891	
Fouche, J. S.	Route, Ga.	Lawyer	1887-1891	Rome, Ga.	1891	Judge City Court, Rome, Ga.
Worley, Miss Louise	Dahlonega, Ga.	Teacher	1887-1891	Dahlonega, Ga.	1891	C. S. C. Franklin County.
Worley, Miss Anna Lee	Dahlonega, Ga.	Teacher	1887-1891	Dahlonega, Ga.	1891	Librarian N. G. A. College.
Cobb, W. H.*	Carnesville, Ga.	Teacher	1889-1892	Mt. Airy, Ga.	1892	State Senator, Co. Sch'l Comm'r.
Allen, J. P. B.		Teacher	1887-1892	Dahlonega, Ga.	1892	Teacher in Savannah.
Ryals, Jas. W.	Savannah, Ga.	Merchant	1889-1892	Savannah, Ga.	1892	Doctor.
Wood, Geo. B.	Anderson, S. C.	Merchant	1888-1892	Dawsonville, Ga.	1892	
Johnson, Miss Emily	Texaskana, Tex.		1891-1892	Marietta, Ga.	1892	
McMullan, W. B.	Hartwell, Ga.	Farmer	1890-1893	Hartwell, Ga.	1893	Ordinary of Hart county.
Pitner, J. M.	Washington, Ga.	Lawyer	1889-1893	Two Run, Ga.	1894	Wilkes county former C. S. C.
Steele, W. H.	Newton, Co., Ga.	Doctor	1889-1893	Stewart, S. C.	1894	
Hammock, A. D.	Conyers, Ga.	Teacher	1892-1895	Conyers, Ga.	1895	C. S. C. Rockdale county.
Kimsey, W. L.*		Teacher	1895-1895	Clarksville, Ga.	1895	
Alexander, D. H.		U. S. Mail Service	1891-1895	Salem, S. C.	1895	
Roberts, Miss Alice*		Teacher	1890-1895	Dahlonega, Ga.	1895	
Seabolt, T. W.	Nacoochee Valley.	Merchant	1891-1895	Loudslove, Ga.	1895	Teacher Cleveland, Ga.
Petit, Geo. F.			1893-1895	Carteay, Ga.	1895	
Bryson, R. M.	Ocella, Ga.	Lawyer	1892-1896	Rockpile, Ga.	1895	Judge of City Court.
Kyle, J. W.	Ludovici, Ga.	Preacher	1894-1896	Center Side, Ga.	1896	
Meaders, F. M.	Dahlonega, Ga.	Merchant	1892-1896	Dahlonega, Ga.	1896	
Nix, R. C.	Commerce, Ga.	Farmer	1893-1896	Apple Valley, Ga.	1896	U. S. Inspector.
Palmour, Oscar	Atlanta, Ga.	Ins. Agt.	1892-1896	Dougherty, Ga.	1896	
Sinquefield, W. R.	Louisville, Ga.	Farmer	1893-1896	Louisville, Ga.	1896	
Palmer, W. P.*	Clarksville, Ga.	Lawyer	1892-1897	Clarksville, Ga.	1897	
Roundtree, Mrs. A. M. nee, Miss Hattie Rogers	Adrian, Ga.		1894-1898	Adrian, Ga.	1898	Wife of Dr. A. M. Roundtree.

Name	Present Address	Occupation	Year in College	Residence When in College	Grad.	Remarks
Parks, B. G.	Waycross, Ga.	Lawyer	1895-1899	Murrayville, Ga.	1899	
Johnson, R. L.		Teacher	1897-1899	Grangerville, Ga.	1899	
Clark, E. M.		Bookbpr.	1898-1899	Louisville, Ga.	1899	
Gain, A. W.	Maunila, P. I.	Teacher	1896-1900	Porter Springs, Ga.	1900	Prof. Pedagogy Normal School
Gurley, H. D., Jr.	Birmingham, Ala.	Supt. Telph.	1896-1900	Dahlonega, Ga.	1900	
McClesky, F. H.	Atlanta, Ga.		1898-1900	Blackwells, Ga.	1900	
Peacock, H. L.	Rhine, Ga.	Lumberman	1896-1900	Cochran, Ga.	1900	
Smith, W. M.	Atlanta, Ga.	Lawyer	1896-1900	Augusta, Ga.	1900	
Harris, C. L.	Cumming, Ga.	Teacher	1897-1900	Silver City, Ga.	1900	Mayor of Cumming, Ga., Co Sch. Cmr.
Gallard, Miss Fannie	Dahlonega, Ga.	Teacher	1896-1900	Dahlonega, Ga.	1900	Dahlonega Public School.
McKibben, T. C.	Waynesboro, Ga.		1897-1900	Patillo, Ga.	1900	
Blount, R. M.	Dallas, Tex	Trained Nurse	1898-1900	Waynesboro, Ga.	1900	
Crisson, Maggie	Arizona.	Truck Farmer	1896-1900	Dahlonega, Ga.	1900	
McKee, W. J.			1898-1900	McKee, Ga.	1900	
Sosebee, R. L.*	College Park, Ga.	Teacher	1898-1900	Nelson, Ga.	1900	
West, J. W.			1897-1901	Vera, Ga.	1901	Prof. G. M. A., College Park, Ga Lt. Col. Governor's staff.
Harris, S. A.	U. S. Army.	Soldier	1897-1901	Silver City, Ga.	1901	1st Lt. U. S. Army.
Welchel, A. J.		Physician	1897-1901	Dougherty, Ga.	1901	
Sosebee, L. P.		Civil Eng.	1898-1901	Nelson, Ga.	1901	
McGrath, M. H.			1899-1901	Nelson, Ga.	1901	
Scott, W. W.	Atlanta, Ga.	Clerk	1899-1901	Canton, Ga.	1901	
Farrar, W. T.			1899-1901	Ingleside, Ga.	1901	
Byers, J. H.	Kansas.	Teacher	1898-1902	Price, Ga.	1902	
Horton, Paul Jones	U. S. Army.	Soldier	1899-1901	Winder, Ga.	1902	First Lieut. Coast Artillery.
Byers, Augustus	Price, Ga.	Exp. Messngr.	1898-1902	Price, Ga.	1902	
Piner, Mrs. M. W., nee Miss Marie Gaillard	Chicago, Ill.	Teacher	1898-1902			
Barnes, J. C.	Dahlonega, Ga.	Teacher	1899-1902	Stinson, Ga.	1902	Harvard.

Name	Present Address	Occupation	Year in College	Residence When in College	Grad.	Remarks
McKee, Miss Eva	McKee, Ga.	Teacher		McKee, Ga.	1902	Student Columbia University, N. Y.
Whitehead, A. C. Mrs., nee Miss C. Wheelchel		Teacher	1898-1902	Pine Mt., Ga.	1908	
Whitehead, A. C.		Teacher	1899-1906	Eastman, Ga.	1902	
Scales, J. H.		Cashier	1901-1902	Suwanee, Ga.	1902	
Byers, J. R.	Gainesville, Ga.	Farmer	1899-1903	Price, Ga.	1903	Employee in Post Office.
Grant, N. W.	U. S. Navy.	Soldier	1899-1903	Clarksville, Ga.	1903	Paymaster.
Berry, J. R.	Griffin, Ga.	Teacher	1900-1903	Griffin, Ga.	1903	Principal Public School.
Byers, Miss Cora	Price, Ga.	Teacher	1899-1903	Price, Ga.	1903	
Elkan, Louis	Washington State	Merchant	1900-1903	Brunswick, Ga.	1903	
Maddox, C. E.			1900-1903	Freemansville, Ga.	1903	
Gallard, Miss Sallie	Chicago, Ill.	Teacher	1900-1904	Dahlonega, Ga.	1904	
Fortson, L. G.		Teacher	1901-1904	Elberton, Ga.	1904	
Henley, J. R.	U. S. Army.	Soldier	1900-1904	Jasper, Ga.	1904	U. S. Marines. 1st Lieut.
Gortatowsky, J. D.	Atlanta, Ga.	Journalist	1900-1904	Albany, Ga.	1904	Journal Staff.
Broach, J. F.		Teacher	1900-1904	Compton, Ga.	1904	
Stewart, J. C.	Kingman, Ariz.	Teacher	1900-1904	Ludville, Ga.	1904	
Bowen, Urban	Buford, Ga.	Teacher	1900-1904	Tesatee, Ga.	1904	Principal of High School.
Chappel, A. H.	Midriver, Ga.	Farmer	1901-1904	Chappel, Ga.	1904	
Drew, W. D.		Bookkeeper	1901-1904	Midville, Ga.	1904	
Holden, Lester			1901-1904	Johnston, Ga.	1904	
Steed, O. W.		Business	1900-1904	Spring Place, Ga.	1904	
Jelks, G. J.	Atlanta, Ga.		1902-1904	Hawkinsville, Ga.	1904	
Peacock, W. H.	Cochran, Ga.	Farmer	1902-1904	Cochran, Ga.	1904	
Rutherford, Robert	Culloden, Ga.	Freight Agt.	1901-1904	Culloden, Ga.	1904	
Byers, Rufus	Mauiia, P. I.	Soldier	1899-1905	Price, Ga.	1905	1st. Lt. Constabulary, P. I.
Wheelchel, Miss Ruth	Lyons, Ga.	Teacher	1900-1905	Price, Ga.	1905	
Wilson, F. C.	Savannah, Ga.	Dentist	1881-1885	Savannah, Ga.	1905	
Lunsford, W. P.		Teacher	1901-1904	Suches, Ga.	1905	
Gay, B. F.	Sharptop, Ga.	Teacher	1902-1905	Sharptop, Ga.	1905	
Smith, R. E. L.*	Greely, Ga.	Teacher	1901-1905	Greely, Ga.	1905	County Officer.

Name	Present Address	Occupation	Year in College	Residence When in College	Grad.	Remarks
Bredlove, W. M.	Monroe, Ga.	Merchant	1903-1905	Monroe, Ga.	1905	
Castleberry, L. R.	College Park, Ga.	Bookkeeper	1903-1905	Dahlonega, Ga.	1905	
Harris, C. M.	Dalton, Ga.	Farmer	1903-1905	Dalton, Ga.	1905	
Matthews, W. O.	Decatur, Ga.	Farmer	1903-1905	Decatur, Ga.	1905	
McKee, H. D.	McKee, Ga.	Farmer	1902-1905	McKee, Ga.	1905	
Aycock, J. T.	Monroe, Ga.	Farmer	1902-1905	Monroe, Ga.	1905	
Patterson, E. P.	Griffin, Ga.	Lawyer	1901-1905	Milner, Ga.	1905	
Barnes, G. M.	Riverdale, Ga.	Teacher	1902-1906	Stinson, Ga.	1906	
Gallard, W. S.	College Park, Ga.	Teacher	1900-1906	Dahlonega, Ga.	1906	Prof. Ga. Military Academy
Jackson, W. L.		Telephone S.	1901-1906	Stockbridge, Ga.	1906	
McKibben, G. C.	Hephzibah, Ga.	Teacher	1904-1906	Elgin, Ga.	1906	
Davidson, E. W.	Atlanta, Ga.	Merchant	1903-1906	Atlanta, Ga.	1906	
Broach, W. E.	Compton, Ga.	Teacher	1903-1906	Compton, Ga.	1906	
Phillips, J. E.	Pierceville, Ga.	Lumberman	1902-1906	Pierceville, Ga.	1906	
Burnett, C. D.	Tennille, Ga.	Bookkeeper	1902-1906	Tennille, Ga.	1906	
Moore, R. V.	Dahlonega, Ga.	Elec. Engine	1903-1906	Dahlonega, Ga.	1906	
Knox, J. T.	Manila, P. I.	Const. Serv.	1902-1906	Westminster, S. C.	1906	First Lieut.
Simmons, Y. J.	Gainesville, Ga.	Teacher	1904-1906	Gainesville, Ga.	1906	
Elkan, Julius	Bellingham, Wash.	Merchant	1904-1907	Brunswick, Ga.	1907	
Gaskins, Alvah	Nashville, Ga.	Merchant	1903-1907	Nashville, Ga.	1907	
Phillips, Chas. G.		Lumberman	1903-1907	Fannin Co., Ga.	1907	
Stephens, M. L.		Farmer	1904-1907	Heard Co., Ga.	1907	
Shed, Lizzie	Hoschton, Ga.	Teacher	1902-1908	Hoschton, Ga.	1908	
Burch, A. A.	Dublin Ga.	Law Student	1904-1908	Dublin, Ga.	1908	
Ray, Bruce		Teacher	1903-1908	Newport, Ga.	1908	
Gay, M. C.	Winterville, Ga.	Teacher	1908	Sharp Top, Ga.	1908	Supt. Public Schools.
Townsend, W. T.		Lawyer	1900-1906	Sharptop, Ga.	1908	
Black, J. D.		Merchant	1908			
Brooksher, C. J.	Dougherty, Ga.	Merchant	1902-1908	Dahlonega, Ga.	1908	
Brown, C. B.	Dahlonega, Ga.	Merchant	1903-1908	Dalton Co. Ga.	1908	
Castleberry, V. W.	Camden Co.		1902-1908	Dahlonega, Ga.	1908	

Name	Present Address	Occupation	Year in College	Residence When in College	Grad.	Remarks
Jackson, Maud	Dahlonega, Ga.	Teacher	1902-1908	Dahlonega, Ga.	1908	Dahlonega Public School.
Neal, Harry	Hamilton, Ga.	Teacher	1903-1908	Hamilton, Ga.	1908	Prof. in 7th Dist. Agr'l. College.
Creel, J. E.	Powder Spgs., Tenn.		1905-1908	College Park Ga.	1908	
Denham, E. T.	Eatonton, Ga.		1904-1908		1908	
Fraser, C. W.	Hinesville, Ga.		1904-1908	Hinesville, Ga.	1908	
Rice, G. E.	Forsyth, Co.		1904-1908	Forsyth Co., Ga.	1908	

### CLASS OF 1909.

Bynum, G. N., A. B.	Dahlonega, Ga.	Teacher	1905-1909	Pine Mt., Ga.	Prof. in N. Ga. Agr'l. College.
Power, C. E., A. B.	Harrison, Ga.	Teacher	1906-1909	Vienna, Ga.	
McGuire, Fannie, B. S.	Macon, Ga.	Law Student	1905-1909	Dahlonega, Ga.	
Johnson, H. V., B. S.	Buffalo, N. Y.	Gov. Emp'y.	1905-1909	New Bridge.	
Cavender, E. J., B. S.	Dahlonega, Ga.	Teacher	1905-1909	Dahlonega, Ga.	Prof. in N. Ga. Agr'l. College.
Cavender, F. C., B. S.	Dahlonega, Ga.	Supt. of Mines	1905-1909	Dahlonega, Ga.	
Welchel, H. E. M. E.	Dahlonega, Ga.	Lumber Dealer	1905-1909	Price, Ga.	
Willingham, E. D., M. E.	Atlanta, Ga.		1905-1909	Atlanta, Ga.	
Burnett, Carl, B. Agr.	Barnesville, Ga.	Teacher	1905-1909	Dahlonega, Ga.	Prof. in Sixth Dist A. & M. School
Galloway, T. O., B. Agr.	Braselton, Ga.	Bookkeeper	1905-1909	Elberton, Ga.	
Vaughan, P. W., B. B. S.	Dahlonega, Ga.	Merchant	1906-1909	Dahlonega, Ga.	
McKee, Burt, B. B. S.	U. S. Army.	Officer	1906-1909	Dahlonega, Ga.	
Price, F. S. L., A. B.	Dahlonega, Ga.	Teacher	1909	Dahlonega, Ga.	Capt. 8th U. S. Infantry.
Ash, W. S., A. B.	Dahlonega, Ga.	Teacher	1909	Dahlonega, Ga.	Superintendent School.
Shultz, Carl, B. Ped. B. B. S.	Dahlonega, Ga.	Teacher	1909	Dahlonega, Ga.	Prof. in N. Ga. Agr. College.

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